SOUTH BERWICK

Draft Comprehensive Plan

June 25, 2007

South Berwick, Maine Comprehensive Plan Update

Following the award of grant money from the Maine Office of State Planning, the Town Council appointed a Comprehensive Plan Update Committee in September of 2002. The Committee worked with the Town's Planning Staff along with Municipal Resources, Inc. (MRI), the Town's Planning Consultant, for purposes of implementing the grant and revising the 1990 Comprehensive Plan.

The committee started work in the fall of 2002 by meeting with representatives of the State Planning Office and Southern Maine Regional Planning Commission, identifying available resources, and scheduling various milestones for completion of incremental tasks.

In January 2003 a Vision Meeting was held at the Town Hall with over 100 people attending. After a general presentation by MRI, focus groups for brainstorming sessions were formed. The results of each group were recorded and summarized. The vision meeting also identified people willing to serve on subcommittees. In addition, in an effort to seek the opinions of as many citizens as possible, a Town wide survey was mailed to all households.

For six months the subcommittees worked on goals to be included in the Plan update and strategies for implementation of the goals. The results of the survey provided perspective and helped in the development of goals and strategies. By June the update committee reviewed the subcommittees' work and forwarded the results to MRI for consolidation and drafting of section narratives. In fall 2003, the update committee continued review work on draft narratives along with further review of goals and strategies for each section.

A draft representing work completed through December 2003 was disseminated for initial review by the State Planning Office, South Berwick Town Council, South Berwick Planning Board and interested citizens.

In 2004, based upon comments received from the state and with the grant of additional funds, revisions were made and three buildout scenarios were developed with the assistance of the Southern Main Regional Planning Commission.

In 2005, a second informal review was provided by the State Planning Office and the Comprehensive Plan Update Committee made further revisions based on several comments received, while striving to ensure that the Comprehensive Plan would serve as a viable planning and development tool for the Town of South Berwick.

This document was submitted in January, 2006 to the State Planning Office on behalf of the South Berwick Comprehensive Plan Update Committee and MRI.

This document is respectfully submitted to the South Berwick Town Council in June, 2007 on behalf of the South Berwick Comprehensive Plan Update Committee, Jack Shipley, Chairman. The document is submitted with the State Planning Office letter finding the plan consistent with the Growth Management Act.

STATE OF MAINE
EXECUTIVE DEPARTMENT
STATE PLANNING OFFICE
38 STATE HOUSE STATION AUGUSTA, MAINE 04333

JOHN ELIAS BALDACCI
GOVERNOR

MARTHA E. FREEMAN
DIRECTOR

May 23, 2007

Suzanne Roberge, Chairman Town Council
Jack Shipley, Chairman Comprehensive Plan Update Committee
Jeffrey A. Grossman, Town Manager
James L. Fisk, RLA
Director of Planning and Development
Town of South Berwick
180 Main Street
South Berwick, ME 03908

Dear Ms. Roberge and Mssrs. Shipley, Grossman and Fisk:

The Maine State Planning Office (SPO) has received additional material from South Berwick in response to our re-review letter of February 5, 2007. This letter serves to wrap-up our review of proposed modifications to the Town of South Berwick 2006 Draft Comprehensive Plan.

We are pleased to inform you that the materials submitted to date address the inconsistencies identified in our consistency review findings letter of May 12, 2006 and follow up re-review findings letter dated February 5, 2007. The Town of South Berwick 2006 Draft Comprehensive Plan together with proposed changes identified by the Town and reviewed by SPO enable us to find the plan ***consistent*** with the Planning and Land Use Regulation Act.

The Comprehensive Plan Update Committee, the Town's citizens and Town staff should be recognized for their hard work, commitment and contributions in the preparation of South Berwick's Comprehensive Plan.

Listed below are the findings associated with this re-review and a summary of the materials submitted to address the inconsistencies.

Inconsistency 1. Planning period
Inconsistency 1 Planning period has been addressed in its entirety.

Inconsistency 2. Implementation strategy section
Inconsistency 2 Implementation Strategy has been addressed in its entirety.

Inconsistency 3. Affordable housing
Inconsistency 3 Affordable Housing has been addressed in its entirety.

The Maine State Planning Office (SPO) has received and reviewed the following materials from South Berwick in response to its consistency review findings letter of May 12, 2006 and the follow up re-review findings dated February 5, 2007:

Item 1
Letter from Jim Fisk to Ruta Dzenis dated January 9, 2007. Attachments: Three separate memorandums to James Fisk from Jack Metee, Appledore Engineering, Inc. dated January 5, 2007 as follows:

1. Re: South Berwick Comprehensive Plan Population Projection/Growth Area;
2. Re: South Berwick Comprehensive Plan Implementation Plan; and
3. Re: South Berwick Comprehensive Plan Affordable Housing.

Item 2
Letter from Jim Fisk to Ruta Dzenis dated February 26, 2007 Re: South Berwick Comprehensive Plan Implementation Matrix Chapter dated February 26, 2007.

Item 3
Memorandum from Jim Fisk to Ruta Dzenis dated April 11, 2007 Re: Draft of responses for Comprehensive Plan inconsistency with the Growth Management Act

The April 11th memo provides a discussion of desired and/or anticipated industrial development including highlights from recent reports; a discussion of the proposed I-1 and I-2 zones related to the Future Land Use Plan and a review of lands unsuitable for development within the industrial zones.

Attachments to the memo include a revised Figure 9 Industrial Area Available Land dated April 11, 2007. Figure 9 was part of the background material provided in the Town's January 9th transmittal.

Item 4
Letter from Jim Fisk to Ruta Dzenis dated April 24, 2007. Attachment: Revised South Berwick Comprehensive Plan Housing Chapter and Revised Housing Goals and Strategies

Item 5
E-mails from Jim Fisk to Ruta Dzenis dated May 16, 2007 and May 22, 2007.

Submissions include a Revised South Berwick Comprehensive Plan Land Use Chapter dated May 16, 2007 and a revised Map K.2 South Berwick Comprehensive Plan Future Land Use Map dated May 21, 2007 indicating modifications to the I1 and I2 zones.

Final Draft of the Comprehensive Plan Update

It is our understanding that the following chapters of the Final Plan will be updated to incorporate the material submitted by the Town for SPO's re-review as it moves forward with its adoption. This includes making reference to revised population projections and projected year round occupied dwelling unit demand covering the period of 2005 to 2015 in the following chapters:

- **Population Chapter** Updating the narrative under Section 6 Projected Population on page P-5 and incorporating a revised Table A-6.
- **Housing Chapter** Updating the revised chapter submitted April 24th under Section 6 Housing Projections on page H-11 and incorporating a revised Table C-13 as well as the narrative under Section 9 Key Findings and Issues on page H-12.
- **Land Use Chapter** Updating the revised chapter submitted May 16th under Section 13 Projected Acreage for Development on page LU-12.
- **Implementation Chapter** Incorporating the Housing section of Implementation Matrix dated April 24, 2007 into the Draft Implementation Matrix dated February 26, 2007.

Again, the best in moving forward with your public hearing on the revised draft, its adoption and implementation of the Plan. Please feel free to call me. I would be pleased to provide what assistance I can as you move ahead. I can be reached at ruta.dzenis@maine.gov and 207/287/2851.

Yours truly,

Ruta Dzenis

Ruta Dzenis AICP
Senior Planner – Land Use Team

C: Stacy Benjamin, Director – Land Use Team
Paul Schumacher, SMRPC

EXECUTIVE SUMMARY

PURPOSE

Comprehensive Plans provide an opportunity for a community to inventory and analyze local conditions in a systematic and thorough manner. Through consideration of this community data and local values, preferences and expectations, a vision for future growth, development and public and private programs is created. The resulting Comprehensive Plan can provide guidance for community leaders as they develop policy. Alone, the document stands as a valuable reference compendium of carefully evaluated suggestions. The challenge remains for these suggestions to be transformed into policy and action.

The 2004 edition of the South Berwick Comprehensive Plan, updating and expanding upon the previous 1990 edition of the Comprehensive Plan, is the result of many hours of committee meetings, public vision meetings, a town-wide survey and the input of a variety of professionals in related fields. The following paragraphs provide a brief overview of this work.

COMMUNITY PROFILE

South Berwick's population increased by 31 percent in the 1980s and 12 percent in the 1990s, and reached 6,671 in the 2000 US Census. The Town's growth in the 1990s mirrored York County.

Community concerns focused on threats to water supply, traffic issues, overburdening of town services, loss of open space and access to good jobs as issues tied to population growth patterns. Maintaining the rural character of the Town was a key preference in the community vision meeting.

In 2000, South Berwick's median housing size of 2.76 exceeds the average for both York County and the State of Maine. Median household income of $53,201 was considerably higher than the county and state medians as well. About 64 percent of residents had lived in the same house in 1995, reflecting a slightly lower mobility rate than the county.

The Maine State Planning Office projects South Berwick to have a population of 7,573 by 2015, a rate consistent with York County and faster than the state.

ECONOMY

In 2000, approximately 36 percent of South Berwick's population was in the labor force, with unemployment rates below county and state averages. Over one half of the community survey respondents reported working in either the greater Portsmouth/Kittery area or Durham/Dover/Rochester area.

The largest sectors of employment of South Berwick's work force are in the areas of manufacturing, education and health services. About 74 percent of the labor force is employed in the private sector.

It is important for the Town to remain involved in regional economic development activities while also seeking to assist local businesses. As manufacturing continues to decline nationally, the Town will likely need to make further adjustments in its economic base.

HOUSING

Of the 2,403 occupied housing units in South Berwick counted in the 2000 Census, 78 percent were owner occupied and 22 percent were renter occupied. In terms of new housing development, the community survey showed a strong preference for cluster or open space/conservation residential subdivisions.

Between 1980 and 2000, the total number of housing units in South Berwick increased by about 67 percent from 1,487 units in 1980 to 2,488 units in 2000. However, much of this occurred between 1980 and 1990, with growth in the following decade falling to 10 percent and with the Town's growth rate in the 1990s lagging York County.

South Berwick's median home value of $131,700, as reported in the 2000 Census, is less than York County. As a result of the town-wide revaluation in 2002-2003, the value of owner occupied homes has increased to an average price of $202,569.

Indicators of low vacancy rates for both owner-occupied and rental housing show the presence of a housing shortage. Median rental rates and home values are higher than York County averages.

In 2002, approximately one-third of all households in South Berwick were considered low, very low or extremely low income, which is less than the county as whole, with 53.6 percent of renter households falling into this category. The State of Maine encourages towns to ensure than 10 percent of all new housing is affordable to the very low income and low-income groups. Housing is generally considered affordable when it costs less than 35 percent of household income. About 20 percent of South Berwick renters spend 35 percent or more of their household income on housing. Market forces somewhat beyond the Town's control drive housing affordability in Town. The Zoning Ordinance addresses affordability by providing opportunity for a diverse housing stock, including multi-family developments, duplexes, mobile homes (on individual lots as well as in parks), accessory apartments and cluster-type developments.

Senior citizens are a segment of the population with special housing needs. This age group's desire for alternative housing will have a significant influence on the housing market as some trade down to smaller homes and others move to congregate care. It is important for the Town to consider this population as it plans future housing opportunities.

TRANSPORTATION

Over the past 15 years public opinion surveys of South Berwick residents have consistently shown that traffic and transportation are at, or near, the top of the list of

community concerns. Major issues include: heavy traffic through the downtown and on Route 236; heavy truck traffic, especially through the downtown; traffic safety; speed limits; detouring of traffic onto local roads to circumvent downtown congestion; pedestrian and bicyclist safety; and downtown parking facilities.

As South Berwick and the surrounding region have grown, the roadway network has expanded to serve newly developed areas. Steady increases in traffic volumes, both in and through South Berwick, have increased congestion in the downtown, and particularly access to Route 236. Maintenance and expansion of roads, wise planning of the location and extent of further development, and increased use of alternative modes of transportation (public transit, bicycling, walking) will all play an important role in the Town's future.

South Berwick's transportation network consists of approximately 75 miles of roadway. Major highways are State Routes 4, 91, 101 and 236. Routes 4 and 236 facilitate general north-south traffic, while Routes 91 and 101 carry east-west traffic. Routes 4 and 236 converge in downtown South Berwick, carrying a significant amount of traffic through the heart of the community. The balance of South Berwick's roads are local roads providing access to state highways or are service roads for adjacent property owners that accommodate little or no through traffic.

Changes in commuting patterns have helped put a record number of cars on Town roads. U.S. Census figures show that between the years 1990 and 2000 the number of South Berwick residents who reported carpooling to work dropped dramatically. On the other hand, during the same time span there was a small but significant increase in the number of people who reported working at home. This suggests that while the overall trend is toward greater inefficiencies in vehicle usage, local economic development has the potential to mitigate some of the increases in traffic growth resulting from increases in commuting times and distances.

By 2000, however, the average commute time had increased to 26.8 minutes, one minute longer than the County average.

According to the traffic count data provided above, almost 19,000 vehicles travel through downtown South Berwick every day, the highest volume of traffic experienced along any state route in Town. Volumes during the a.m. peak period (6:45 – 7:45 a.m.) are over 1,200 vehicles, and increase to almost 1,600 vehicles per hour during the p.m. peak period (4:00 – 6:00 p.m.). Volumes drop to less than 400 vehicles per hour between 7:00 p.m. and 6:00 a.m.

Conditions on Routes 236 and 4 render these roads as major impediments to the free flow of bicycle and pedestrian traffic in Town. High speeds, traffic volumes and number of accidents on Route 236 make it difficult and/or unsafe to cross the roadway at virtually all points south of the village center, effectively dividing the Town. High traffic volume and speeds make Route 4, especially the Portland Street section, unsafe for unsupervised children on foot or on bicycle.

PUBLIC FACILITIES

South Berwick has a variety of agencies that provide a range of public services.

The South Berwick Water District (SBWD) provides drinking water to the community of South Berwick and a small portion of Berwick in York County, Maine. The District's well supply is projected to have a slight deficit beginning in 2010. The deficit grows to approximately 65gpm in the year 2020. Several measures are recommended to increase supply capacity in South Berwick by using existing sources of supply. Recent water quality data suggests that the District will meet the requirements of the proposed arsenic, radon and groundwater rules. However, the District should continue to track these regulations through the final rule making and enforcement phases. Treatment at Willow Drive wells and the bedrock well at Agamenticus Station has been added to reduce high iron and manganese concentrations and to insure adequate capacity and quality.

The Town of South Berwick, in conjunction with the Water District, has implemented several planning measures to protect the groundwater resources within the community. These measures include land-use zoning for all property around existing public wells and a restrictive site plan review process for planned development around existing wells. The District has also established land management practices which include timber harvesting or selective cutting as determined by State certified foresters within its source water protection areas.

The South Berwick Sewer District has a sewage collection and treatment system consisting of gravity sewers and force mains, five pump stations, and a treatment plant constructed as a primary facility in 1965 and upgraded to a tertiary plant in 1995. The collection system runs throughout the urban portion of the community, and services the regional high school two miles south of the town center on Route 236 via a pump station and force main. The system currently serves approximately 50 percent of the population. The current capacity of the plant is sufficient to handle an average growth of 25 households per year for the next 20 to 25 years.

The collection system consists of 18 to 20 miles of pipe ranging in size from 8 to 15 inches in diameter. All pump stations are equipped with an electronic surveillance system that allows remote monitoring of each station from the treatment plant. The District added approximately 120 new connections to the system from 2002 through 2004 and is completing a system at Brattle Street that will add 25 more members to the district.

The Town operates a Transfer Station and holds a 20 year contract through the Maine Energy Recovery Company (MERC) facility in Biddeford for the incineration of household wastes, obligating the Town to provide the facility with a minimum of 1,500 tons and a maximum of 2,250 tons per year of solid waste over the life of the contract.

Police services in South Berwick are provided on a 24-hour a day basis, including a full time staffed Dispatch Center. The Police Department currently employs sixfull time officers and a Chief of Police. The Dispatch Center provides 24 hour per day coverage

and is staffed with four full time and eight part time employees. Based on national, state, county and local standards the South Berwick Police Department has been operating below the minimum recommended staffing levels.

The Fire Department provides 24 hour per day coverage for the town from one station located on Norton Street in the downtown area. There are 40 positions on the department All members of the department are paid on call firefighters.

The South Berwick Emergency Rescue Squad is a non-profit, largely volunteer organization responsible for ambulance services for the towns of Rollinsford and South Berwick, with South Berwick paying approximately 75 percent of the joint municipal contributions. Activity levels between 1991 and 2001 more than doubled, with car accidents being the most frequent calls.

The South Berwick Public Library has 3 part-time employees and has a book budget of $8,449 per year. To date, it houses approximately 18,000 volumes. A new library site within the designated growth area is currently being discussed.

Maine School Administrative District #35 is comprised of the towns of South Berwick and Eliot. Total enrollment for the district is currently 2,761 students. The district does not expect any new building projects within the next ten years. Ten year projections of student population show little change from present.

The Town owns and operates several municipal buildings, including: Town Hall/Police Station, South Berwick Community Center, Town Garage, Transfer Station, Library, Teen Center, former Rescue Building, Powder House Ski Hill and a Parks and Recreation Department.

DOWNTOWN

Downtown South Berwick is a key part of the community identity. Strong interest exists in preserving the building style and layout of downtown. However, challenges from big box retail stores in surrounding communities as well as retail in neighboring New Hampshire, without a sales tax, makes the retail climate more difficult. Traffic, commuting and local, frequently congests the downtown core, limiting accessibility and convenience. Truck traffic poses additional safety challenges as well as creates a less appealing pedestrian environment.

When asked to identify serious challenges facing South Berwick over the next 5 years, participants at the Community Vision meeting identified several downtown challenges. These included traffic, parking, strengthening the downtown business climate, preserving the aesthetics and character of the village center and a need for overall maintenance and encouragement of downtown vitality.

Downtown South Berwick is an asset of which the community is proud and ranks as one of the top places residents take visiting friends and relatives. Revitalizing existing structures in a downtown can reinforce a positive perception downtown is improving. A

variety of approaches and funding sources may be appropriate given the diversity of downtown.

NATURAL RESOURCES

South Berwick's topography is generally characterized by gently rolling hills, several small ponds, streams and wetlands bisected by the Great Works River. The southwestern portion of the Town is bounded by the Salmon Falls River. Rough estimates from aerial photographs show that 70 percent to 80 percent of the Town is forested. Much of the open land is found within one to two miles of the Salmon Falls River and the Great Works River corridors. Other open areas are interspersed along roadways of the Town that lie near/within the Mount Agamenticus region, which is heavily forested.

Depth to bedrock is perhaps of greatest concern in areas being considered for future growth and the extension of sewer and water lines. Depth to bedrock is a constraint in a number of potential growth areas surrounding the built up portion of the Town. There are seven soil associations located in South Berwick. Many of South Berwick's soils have limitations for development. Areas with poorly drained and very poorly drained soils can be found throughout South Berwick. The largest concentration of poorly drained soils is located just northeast of the village area and extends beyond Agamenticus Station.

The 2003 Community Survey showed that the majority of those surveyed indicated that the loss of open spaces, threats to water supply and loss of rural character are serious challenges facing South Berwick. Those responding to the survey felt that it was of some importance to spend tax dollars for access to ponds, woodlands, parks, passive outdoor recreation areas, and hiking trails.

South Berwick has uniquely intact natural resources. A wide variety of natural systems from coastal to upland forest host extensive wildlife resources and recreational opportunities for people. The capacity of these systems depends upon their being buffered from the effects of development. This is particularly the case in those areas not protected by shoreland zoning or by state essential habitat designation.

WATER RESOURCES

South Berwick has a wide variety of water resources; rivers and ponds, wetlands and brooks and sand /gravel and bedrock aquifers. Though sufficient for current needs of the community, their maintenance will require monitoring and protection as growth continues within the town. The Town's surface water resources include two rivers, five ponds and numerous brooks, streams and wetlands. Most of South Berwick's waterways currently meet State water quality standards.

Four of the Town's Ponds are considered "Great Ponds" by the State. This means they are owned by the people of the State of Maine and may be accessed on foot over unimproved private property for fishing and fowling. All great ponds in South Berwick are currently enrolled in the Maine Volunteer Lake Monitoring Program, which assesses

them for clarity (algae blooms) indicating trends in water quality. Additionally, they have Resource Protection Zoning status by the Town in an attempt to maintain both water quality and wildlife status.

Though overall, the quantity and quality of South Berwick's ground water is good, there are issues with iron and manganese for both private well owners and the South Berwick Water District. A few areas in Town experience issues with sulfur in private wells. Polluted aquifers in the Hooper Sands area continue to pose a threat of contamination.

AGRICULTURAL, FORESTRY AND WILDLIFE RESOURCES

South Berwick has a viable economic agricultural and forestry base of small farms and woodlots, which also provide public values that include scenic and recreational. Maintaining this land base contributes to rural character valued by town residents. Rising valuations, operating expenses and development pressure are causing landowners to reassess their operations and in some cases sell out their property.

The Community Vision meeting identified preservation of open space, protection of wetlands, wildlife corridors and farmlands as key challenges facing South Berwick. Tree Growth & Farmland/Open Space taxation are presently the only active measures in effect to conserve farm, forest and wildlife lands.

There has been a great deal of progress made on conserving the Town's wildlife lands since 1991. These lands are found mainly along the Salmon Falls River and the Greater Mount Agamenticus region. The other wildlife focal area is the Salmon Falls River Estuary. This area received Resource Protection Zoning in the early 1990's in order to protect its wildlife corridor and water quality. In addition to Mt. Agamenticus and the Salmon Falls River, the Great Works River provides a meandering wildlife corridor through town. The undeveloped nature of the Town's great ponds make them important habitat for migratory waterfowl as well as broad ranging species such as moose and black bear.

HISTORICAL, ARCHEOLOGICAL & CULTURAL RESOURCES

One of Maine's earliest European settlements, South Berwick possesses a number of locally and nationally significant historic and archaeological sites. However, the Town lacks a comprehensive inventory of these resources. A locally designated historic district in the downtown area, and associated zoning ordinance, provide limited means of protection of historic resources in the downtown. Limited archaeological investigation suggests the riverfronts near the Hamilton House and at the confluence of the Great Works and Salmon Falls Rivers were occupied on several occasions during the past three to five thousand years.

During the Community Vision meeting, participants saw a need to develop and expand existing educational programs to inform residents of local history that is South Berwick as well as a need to expand the Historic District, increase the listings on the National Historic Register and document/inventory more historic sites.

Archaeological resource potential areas include the shore lands of the Salmon Falls River, Leigh's Mill Pond, the Great Works River up to Hooper Sands Road, Knights Pond and a wetland south of the York Woods Road and extending into Eliot. Aeolian, or sand, areas include "The Sands" along Hooper Sands Road and an area associated with White Marsh Brook and extending into the Town of York.

South Berwick's cultural assets consist of past and present people, places and events. The Town has many noted artisans, including writers, artists, performers, promoters and supporters of the arts. The quiet rural setting, proximate to the ocean, lakes and streams, mountains, as well as nearby cities lends itself to creativity. The Town currently promotes reading sessions and has summer music performances. The Town plays host to the famous Strawberry Festival, which brings in scores of artisans and thousands of visitors.

In 1998, the South Berwick Town Council commissioned an architectural historian to initiate an historical building survey of the downtown. A survey of approximately 140 downtown properties was begun. Buildings were photographed and described by an expert; research and documentation now needs to be completed. So far, approximately 100 downtown buildings were noted as potential components of a National Register District. Approximately 20 were found to potentially merit individual listing on the National Register of Historic Places.

The town presently lacks a comprehensive inventory of its historic resources, and a basic strategy for protecting them. There is therefore the risk that sites could be destroyed unintentionally through neglect, or perhaps through new development or renovation of existing buildings without regard to their historic character. The greatest concentration of historically significant structures is in the downtown, where economic stresses and high traffic make them vulnerable. The locally designated historic district and associated zoning ordinance provide limited protection of some resources there. Other significant resources are not protected, or even documented. Many historically significant areas lie along rivers, where development pressures will be high in the coming years.

LAND USE

The Town's 1990 Comprehensive Plan states most growth should occur in the village and surrounding area. This picture is rapidly changing. The current development trend indicates that the focus of residential growth has been in the rural zones.

South Berwick is a relatively large community, consisting of approximately 21,057 acres (32.9 square miles). The Town's topography, until only recently, was the crucial factor determining its outward growth. A vast amount of its commerce and population is nestled in the southwest corner of town, essentially the village, which revolves around the transportation networks. The river, the early roads, the trains, and eventually the state highways flow through this area. The rural areas to the east and northeast remained rural because they either linked only with the village, or were gravel or poorly maintained roads passing to Wells and York. The opening and upgrading of these roads has allowed for greater and easier access to these areas and beyond. Development of

available frontage or suburban sprawl along these rural roads, small subdivisions, and potentially large subdivisions are beginning to dominate this once rural community. The potential for further sprawl and residential growth is tremendous. Previously, the large residential growth spurt seen from the 1980's was due to two large subdivisions located near the village. There were 1,467 residential units in 1980 and 2,262 units by 1990. As of 2000, the total was 2,488. Serious challenges are represented by residential development in rural areas while attaining our community's desire to maintain its rural character and open space.

The Town's downtown has many small commercial enterprises, which cater to specific needs of the community. These include small retail stores, eateries, professional, and service businesses. New Hampshire's lack of a sales and income tax will continue to have a profound effect on South Berwick's ability to attract business. The current industrial zone has seen little activity. Consequently, residential property taxes carry the revenue burden along with these small businesses. The Town may need to explore regional partnerships for developing an industrial base.

The Community Vision meeting results show a high number of people feel residential growth is one of the most important challenges facing South Berwick. Many indicated that a growth management ordinance would be a useful tool to manage residential growth. Some expressed a need for a commercial development. Many expressed a need for the town's vision to be consistent with the zoning ordinance.

The Future Land Use Map calls for increasing minimum lot sizes in the R5 zone and designating part of the R3 District as R5. This plan seeks to concentrate development in Designated Growth Area served by public sewer service. By concentrating growth in the R1, R1A, R2, R2A, B1, B2 and I1 districts, land is conserved and infrastructure and maintenance costs are minimized. In addition, by shifting more land into the R5 zone and increasing lot size in that zone, rural lands are subject to less development and opportunities exist to further the goals and strategies identified in the Natural Resources and Land Use sections of this document.

FISCAL CAPACITY

South Berwick has a lower tax assessment per capita than most of its immediate neighbors. Property tax assessments and tax spending increased at an after-inflation rate of 25 percent between 1999 and 2002. This was somewhat faster than the York County average.

In the community survey about 26 percent of respondents felt that property taxes were a problem, 57 percent felt that they were not a problem. Between 1999 and 2002, South Berwick's tax base has increased by 7 percent, adjusted for inflation. Heavy reliance on property taxes as a source of municipal revenue, with intergovernmental revenues accounting for only 12 percent of revenues in 2000, means that future fiscal capacity is extremely sensitive to assessment growth.

The Town maintains a capital improvement plan. The impacts of new development are considered relative to the Town's capacity to provide municipal services. At this time,

there is no mechanism, such as impact fee assessments, to offset the costs of growth. The tool currently available for managing demands on services is a reliance on requiring phasing of developments so that municipal services can be expanded in a parallel fashion.

South Berwick presently has a relatively low volume of debt when compared to the maximum debt allowed by state law. Towns may borrow up to 15 percent of their total state valuation, which in South Berwick's case would be about $20 million in 2000. In 2000, the Town's direct outstanding long term debt was equal to 0.66 percent of property valuation.

COMPREHENSIVE PLAN VISION COMMITTEE

The Comprehensive Plan Update Committee recommends the creation of a Comprehensive Plan Vision Committee (CPVC) whose purpose is to promote and investigate for implementation those strategies that will best realize the policies and goals of this Comprehensive Plan Update. We recommend a seven member committee that meets regularly to review these strategies while conforming to the Purpose and Intent of Section 102-1 of the South Berwick Code. We recommend this committee include: One member each from the Town Council, Conservation Commission and Planning Board, preferably the Chairs and two members of the public. These five will be the voting members. Suggested additional members who will advise the CPVC are the Code Enforcement Officer and the Planning Coordinator.

The CPVC shall recommend prioritized strategies of the Comprehensive Plan on a continuous basis, in a format for implementation, to the Planning Board or the Town Council for review and approval. The CPVC shall report annually in the Town Report on its progress toward achieving the strategies recommended in this Plan.

DOWNTOWN COMMITTEE
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Marcia Flinkstrom
Karen McCarthy-Eger
Terrence Parker
Barbara Patterson
Paul Schumacher
Charlie Smith
Jerry Tatlock

When friends and relatives visit me the places I take them in South Berwick are:

- Vaughan Woods (8)
- Restaurants (Fogartys & Spring Hill) (6)
- Hamilton House (7)
- Downtown business area (6)
- Historic Houses (Counting House) (5)
- Salmon Falls River (4)
- Berwick Academy/Schools (3)
- Flynns (2)
- Leigh's Mill Pond (2)
- Strawberry Festival (2)
- Jewett House (2)
- Recreational Areas
- Sports Fields
- Backroads
- Great Works River
- SoBo
- Yankee Cupboard
- Powderhouse
- Mill Pond
- Thursday Night concert series
- Balancing Rock

The most serious challenges facing South Berwick in the next five years are:

- Traffic (7)
- Traffic in downtown area
- Parking
- Public services keeping pace with town growth
- Maintaining services
- Sewer capacity
- Growth management (2)
- Pro-actively shape growth
- Smart growth
- Encouraging business
- Supporting downtown businesses while maintaining small town flavor
- Strengthening downtown business fabric; making it downtown/business friendly
- Maintain village character (2)
- Preventing chain stores from establishing in town
- Maintaining character
- Downtown business maintenance
- Preserving village
- Historic preservation
- Preserving aesthetics
- Maintaining downtown vitality
- Residential growth/loss of open space
- Protecting rural areas
- Maintenance of open space (2)
- Economic and social diversity maintained
- Expand opportunity for light/clean industry in town
- Taxes
- Tax base (other than residential)
- Tax base/school costs
- Keep taxes down (2)
- Fiscal capacity
- Housing
- Affordable housing (2)
- Water quality
- Student/teacher ratio
- Education quality and cost
- Need for town planner

HOUSING

- Housing affordability (7)
- Affordable housing through tax incentives for landlords
- Neighborhood flavor
- Preserving look and feel of historic homes
- Subdivisions that retain town's character
- Subdivision regulations
- Mixed use in village
- Encourage mixed uses downtown
- Smaller house lots
- Keep with strict subdivision controls
- Number of subdivisions added must be controlled
- Development within town services
- More strict subdivision ordinance
- Incentives for cluster development
- Mixed use housing
- Multi-family
- Allowing mixed use for new areas
- Impact fees (2)
- Essential economic services
- Impact on the school system

- Limits on building permits (2)
- How will it impact all community services
- Growth close to services
- Downtown design
- Design to reduce driving in downtown area
- Transportation
- Keep open space
- Assisted living facility (2)

LAND USE

- Impact of development on schools & school funding
- Creating controlled commercial/industrial zones
- Industries
- Land for commercial development
- Diverse industrial base & light industry
- Work with adjoining towns on regional industrial park
- Coordination of land use with surrounding towns
- Commercial development on 236 with limited access to collector roads
- Consistency of zoning
- Consistency of vision with zoning
- No urban sprawl
- Subdivision locations and traffic impact
- Subdivision control
- Control rate of housing growth
- Incorporate recreation areas in subdivisions
- Growth limits
- Balance use of land for development & homes
- Look at housing lot size
- Downtown being used for commercial & housing & recreational sites for residents
- Mixed use of land
- Support economic uses of open space – farms
- Open space maintained (2)
- Support of agriculture
- Protect agricultural land/current use
- Impact fees for open space
- Incentives for large property owners to allow for public use, hunting
- Continued support for land conservation
- Need creative development schemes
- Cluster development (3)
- Reduce fringe development
- Provide passive recreation areas
- Development buffered the existing streetscapes
- Designs that fit rural/historical
- Bypass

NATURAL RESOURCES

- Zoning applications to wetlands and resource corridors
- Wildlife & stream corridors (2)
- Controlled development of farmlands – loss of agricultural areas (3)
- Encouraging & creating incentives for agricultural land (3)
- Tax relief for owners of open land
- Acquiring land or development rights (2)
- Create a land acquisition fund
- Conservation land
- Open land (3)
- Protect what's left of agricultural land use
- Cluster zoning allows for maintaining open space
- Encourage land owners to allow public access
- Protect wetlands
- Wetland protection – vernal pools – access to them
- Fish ladders
- Cleaning rivers
- Protect Agam. Region, rivers & ponds
- We should support Eastern Trail
- Greenways and Riverfront walk paths 2
- Preservation & expansion of existing trails
- Education of people on these needs
- Protect and use natural resources
- Fewer impervious surfaces
- Clarification & documentation of natural resources
- Aquifer protection regulations – limitations on water draw down
- Curbside recycling

TRANSPORTATION

- Fix traffic (2)
- Traffic problems
- Traffic – speed patterns
- Controlling traffic flow
- Ways to get around downtown
- Heavy commercial traffic downtown and impact of road quality & safety
- Trucks in town (Better enforcement, eliminate wide loads through town)
- Work with state to divert wide loads out of SB onto Turnpike
- Move tolls to Wells to avoid shortcutting through town
- Address evasion of tolls
- Supporting regional transportation strategy
- Bypass (2)
- Provide 3 way stop Portland Avenue – Main Street
- Pedestrian safety downtown
- Degradation of road sides
- Rural road character maintenance
- Improve subsurface of roads instead of constant overlay
- School bus (2x daily – traffic chaos)
- Solve school transit problem – fewer parents driving and more bus use
- Bike routes in rural areas
- Bike paths (2)
- Bike areas
- Bike racks in downtown
- Community walk/bikeway
- Extend sidewalks outside town and more bike lanes or paths
- Better pedestrian ways in town and subdivisions
- Expansion of sidewalks
- Connect High School to sidewalk system
- Park & ride areas
- Tie into bus system
- Public transportation (2)
- Public transportation to hubs
- Provide alternatives to auto traffic
- Enforcement of speed limits
- Appropriate speed limits
- Parking (more central parking, less in village zoning)
- Parking downtown is needed for growing downtown
- Long range traffic plan

PUBLIC FACILITIES

- Library (7)
- Library close to center
- 20 year plan for new library – Powerhouse Hill site
- Municipal water/sewer vs. private districts
- Town water & sewer under Town government
- Expand water & sewer
- Water & sewer system upgrade/improvement
- Sewer
- Study strain on water supply in terms of growth
- Water resources vs. population
- Put premium price on out-of-town sewage dumping
- Developers pay impact fees
- Public safety is adequate to handle growth
- Sharing services with other towns
- Acquisition of land for various uses
- Encourage recycling (2)
- Park & Ride facility
- Walkway/bikepath
- Master plan for recreation
- Playgrounds 2
- Town parks
- Swimming pool
- Teen center
- In town fitness center
- Schools – central or local/smaller
- Schools need town support – better funding
- Funding school capital projects
- Impact of growth on schools
- Continue sidewalk building & road
- Community arts center
- Protect scenic views and public access to Salmon Falls River and other town owned lands

FISCAL CAPACITY

- Impact fees (5)
- Developers pay fair share (2)
- Tax base management
- Expand tax base 3
- Tax reduction for elderly (2)
- Town-wide cleanup day
- Small retailers
- Encourage small businesses
- Protect small businesses
- Business retention
- Business recruitment that allows SB to be a self-contained community
- Business recruitment (2)
- Commercial development
- Greenbase business recruitment (ecologically aware businesses)
- Growth in industrial areas (2)
- Growth cap to keep population and services in balance
- Public school funding
- Long range capital improvement planning (roads maintenance)
- Capital improvement program
- Tax incentives for downtown development
- Tax incentives for historic district
- Tax incentives for keeping quality businesses

DOWNTOWN

- Parking (4)
- Expand parking (possibly Scott Court)
- Bypass
- Traffic flow and control
- Traffic problems
- Why are trucks using 236/4
- Reduce truck traffic
- Friendly to pedestrians (2)
- Maintaining aesthetics of downtown
- Preservation of existing architectural styles
- Zoning that allows traditional village
- Address deterioration of downtown buildings
- Protect & development more green space
- Common sense approach to preservation
- Attracting new businesses
- Business recruitment and retention
- Encourage basic services
- Keep core businesses downtown
- Grocery store (2)
- Mixed residential and business
- Anchor business
- Support downtown businesses
- Bury electrical wires
- Create downtown association
- Tax incentives for downtown development
- Launch Main Street program to revitalize downtown

HISTORIC RESOURCES

- Expand historic district (4)
- Maintain housing stock
- Teaching heritage to kids (Hike through History)
- Identify specific buildings that are important to the public
- Historical markers
- Document historic resources – create guidelines for Planning Board
- Get true assessment of historical significance
- Determine old vs. historical
- Get a list of what is truly historical
- Historic looks of shoe shop
- Balance between architectural styles and historic district
- Preserve current buildings (3)
- Streetscapes (maintain)
- Market historic town, including Portland Street town entrance
- Promote historic character of downtown
- Design Review Board
- Tax incentives for historic preservation
- Parallel with commercial development with downtown
- Expand Hamilton House like Strawbery Banke
- No casinos
- Cultural activities

NATURAL RESOURCES ISSUES AND RECOMMENDATIONS

1. 2. 3.

4. 5.

TRANSPORTATION ISSUES AND RECOMMENDATIONS

1. 2. 3.

4. 5.

PUBLIC FACILITIES ISSUES AND RECOMMENDATIONS

1. 2. 3.

4. 5.

FISCAL CAPACITY ISSUES AND RECOMMENDATIONS

1. 2. 3.

4. 5.

DOWNTOWN ISSUES AND RECOMMENDATIONS

1. 2. 3.

4. 5.

HISTORIC RESOURCES ISSUES AND RECOMMENDATIONS

1. 2. 3.

4. 5.

South Berwick Comprehensive Plan Update – 2003
Vision Meeting #1 – 28 January 2003

EXERCISE #2

- *In your small group, appoint one person to serve as a recorder.*
- *Share your responses from the sheets you've completed with the group.*
- *Identify the **five** most common and/or interesting observations from the members of your group.*
- *Record these issues on this answer sheet. These will be shared with the group.*
- *If an idea doesn't make it onto your group's list, don't worry – all individual sheets will be compiled for workgroups.*
- *Designate one person who will report out from your group to the whole group.*

When friends and relatives visit me, the places I take them in South Berwick are:

1. 2. 3.

4. 5.

The most serious challenges facing South Berwick in the next five years are:

1. 2. 3.

5. 5.

(For this exercise we are skipping the questions about positive and negative changes -- they'll be tallied later)

HOUSING ISSUES AND RECOMMENDATIONS

1. 2. 3.

4. 5.

LAND USE ISSUES AND RECOMMENDATIONS

1. 2. 3.

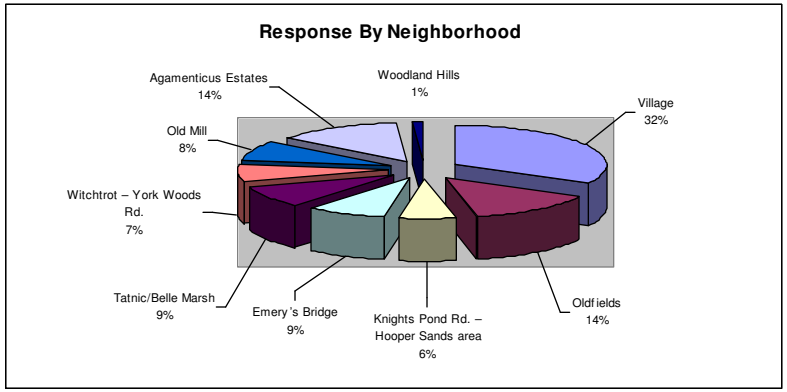
4. 5.

				ACTUAL COUNT					Total Responses
QUESTION 1	**OVERALL AVERAGE**	**RECALCULATED**	**PERCENT**	**1**	**2**	**3**	**4**	**5**	
Good school system	1			419	96	20	12	31	578
Good Police Department	1			425	140	14	7	3	589
Good Fire Department	1			461	112	9	3	3	588
Improved in-town roads	2			179	289	47	45	15	575
Improved rural roads	2			132	263	75	75	32	577
Churches	**3**	**2**		119	134	105	110	93	561
Shopping Facilities	2			64	176	87	154	88	569
Ability to earn a living within the community	**3**	**2**		90	152	74	136	103	555
Full range of recreational facilities	2			63	201	97	128	69	558
Additional cultural facilities	3			45	163	111	160	77	556
Open space and wildlife areas	1			290	200	37	26	18	571
Undeveloped greenbelt, linked by trails or bike paths	1			216	167	75	65	34	557
Combined Fire, Police and Rescue protection	1			253	157	111	30	19	570
Extended municipal water system	**3**	**5**		82	132	120	90	137	561
Extended municipal sewer system	**3**	**5 (choice 2 is only 1 less)**		82	136	113	85	137	553
Other (please specify)	1			64	8	0	2	5	79
QUESTION 2	**OVERALL AVERAGE**			0	0	0	0	0	0
Residential	1			359	187	26	2	0	574
Commercial	**3**	**2**		57	198	126	172	0	553
Industrial	4			55	138	174	185	0	552
QUESTION 3	**OVERALL AVERAGE**			**3**	0	0	0	0	**3**
Traffic	1			472	87	11	10	8	588
Overburden of Town services	1			192	177	144	30	13	556
Tax increases	1			345	163	30	28	9	575
Loss of open space	1			272	155	85	46	12	570
Overcrowded schools	2			146	169	133	75	33	556
Threats to water supply	**2**	**3**		169	131	184	67	11	562
Lack of affordable housing	**2**	**1**		162	133	125	111	38	569
Recycling/solid waste disposal	2			100	194	148	93	24	559
Loss of rural character	1			270	158	65	71	18	582
Parking	2			123	151	122	122	55	573

QUESTION 4	**OVERALL AVERAGE**		**DESIREABLE**	**2**	**2**	0	**2**	0	6	**%**
Create high density areas balanced with low density areas	2		Somewhat	120	162	119	69	76	546	29.7%
Keep town about as it is	1		Very	229	218	55	43	21	566	40.5%
Concentrate growth where it is now	2		Somewhat	87	156	146	84	71	544	28.7%
Encourage growth where there is little now	5		Not	25	105	105	96	221	552	40.0%
Allow growth anywhere	5		Not	14	29	45	78	400	566	70.7%
Limit growth to areas with public water & sewer	2		Somewhat	103	159	134	59	100	555	28.6%
QUESTION 5	**OVERALL AVERAGE**		**AGREE**	0	0	0	0	0	0	
response (Encourage more comm.dev.)	1		Strongly	**236**	177	60	35	58	566	41.7%
QUESTION 6	**OVERALL AVERAGE**			0	0	0	**2**	0	2	
Access to ponds	2			94	204	60	123	86	567	
Marshes	3			92	151	78	141	104	566	
Historic sites	2			122	286	48	62	47	565	
Unique scenic areas	2			149	233	68	78	41	569	
Woodlands	2			177	221	65	66	42	571	
Town parks	2			166	251	52	57	39	565	
Passive outdoor recreational areas	2			121	227	83	72	54	557	
Active recreational areas	2			107	222	85	83	65	562	
Indoor recreational facilities	2			69	186	84	137	90	566	
Bicycle trails	2			117	210	61	113	68	569	
Playing fields	2			122	235	60	92	59	568	
Hiking trails	2			123	220	60	103	63	569	
Swimming facilities	3			85	137	86	133	123	564	
Playgrounds	2			131	207	65	102	57	562	
Other (Please specify):	0			26	10	8	2	9	55	
QUESTION 7	**OVERALL AVERAGE**			0	0	0	0	0	0	
response(support Condo or Cluster if mo	2			152	171	81	79	103	586	
QUESTION 8 (put 1 next to response)	**OVERALL AVERAGE**			0	0	0	0	0	0	
20 homes each with a 2 acre lot	121	numbers in B s/b = to E	22%	128	0	0	0	0	128	
20 homes on 20 acres, with the remaining 20 acres permanently preserved as open space	200		36%	204	**3**	0	0	0	207	
20 homes on 10 acres, with the remaining 30 acres permanent preserved as open space	158		29%	165	0	0	0	0	165	
Uncertain	39		7%	41	0	0	0	0	41	
Other	31		6%	34	0	0	0	0	34	

QUESTION 9	**OVERALL AVERAGE**			0	0	0	0	0	0	
response	2			125	179	90	82	115	591	
QUESTION 10	**OVERALL AVERAGE**			0	0	0	0	0	0	
response	2			182	230	48	60	63	583	
QUESTION 11 (put 1 next to response	**OVERALL AVERAGE**			0	0	0	0	0	0	
Recreational facilities	189	numbers in B s/b = to E	7%	202	0	0	0	0	202	
Public Safety (Police, Fire, Rescue)	529		19%	557	0	0	0	0	557	
Maintenance and upgrading of roads	441		16%	468	0	0	0	0	468	
Municipal offices and services	221		8%	236	0	0	0	0	236	
Health services	202		7%	209	0	0	0	0	209	
Elderly services	252		9%	263	0	0	0	0	263	
Day care services	136		5%	142	0	0	0	0	142	
Schools	245		9%	258	0	0	0	0	258	
Libraries	260		9%	269	0	0	0	0	269	
Water and sewer services	266		10%	278	0	0	0	0	278	
Other (please specify)	25		1%	26	0	0	0	0	26	
QUESTION 12	**OVERALL AVERAGE**			0	0	0	0	0	0	
response (growth area = W & S)	2			157	143	122	76	80	578	
QUESTION 14 (lived in SB)	**OVERALL AVERAGE**	Mode was calculated not average		0	0	0	0	0	0	
response # of years	12	19		31	20	21	23	26	121	
QUESTION 15 (present age)	**OVERALL AVERAGE**			0	0	0	0	0	0	
response # of years	44	50		0	0	0	0	0	0	
QUESTION 16 (# of children)	**OVERALL AVERAGE**	.658 children/households responding		0	0	0	0	0	0	
response # of people	1	99=1, 92=2, 28=3, 3=4, 2=5, 1=6		99	92	28	3	2	224	0.6583
QUESTION 17 (# of preschoolers)	**OVERALL AVERAGE**	.0151 preschoolers/households resp.		0	0	0	0	0	0	
response # of people	1	49=1, 18=2, 2=3		49	18	0	2	0	69	
QUESTION 18 (# in household)	**OVERALL AVERAGE**			0	0	0	0	0	0	
response # of people	2			52	239	99	139	48	577	
QUESTION 19 (put 1 next to response	**OVERALL AVERAGE**			0	0	0	0	0	0	
Less than $20,000	4		4%	25	0	0	0	0	25	
$20,000 - $30,000	10		12%	61	0	0	0	0	61	
$30,001 - $40,000	9		11%	54	0	0	0	0	54	
$40,001 - $55,000	15		18%	95	0	0	0	0	95	
$55,000 - $75,000	23		27%	142	0	0	0	0	142	
$75,001 - $100,000	14		17%	95	0	0	0	0	95	
Greater than $100,000	10		11%	62	0	0	0	0	62	

QUESTION 20 (# of times circled)	**OVERALL AVERAGE**			0	0	0	0	0	0	
Small town atmosphere	80		22%	**504**	0	0	0	0	504	
Close to job centers	24		6%	**148**	0	0	0	0	148	
Close to ocean	45		12%	**288**	0	0	0	0	288	
Affordable housing/land	20		5%	**125**	0	0	0	0	125	
Schools	40		11%	**252**	0	0	0	0	252	
Taxes	13		4%	**85**	0	0	0	0	85	
Quality of life	70		19%	**445**	0	0	0	0	445	
Quality of services	19		5%	**124**	0	0	0	0	124	
Access to large towns	39		11%	**250**	0	0	0	0	250	
Born here	15		4%	**92**	0	0	0	0	92	
Other (please specify	5		1%	**31**	0	0	0	0	31	
QUESTION 21	**OVERALL AVERAGE**	**Actual Average**		0	0	0	0	0	0	
Rent (put 1 if checked)	28		5%	29	0	0	0	0	29	
Mortgage (put 1 if checked)	508		95%	534	**1**	0	0	0	535	
Rent payment	$ 562.13	791.94		0	0	0	0	0	0	791.94
Mortgage payment	$ 587.54	987.03		0	0	0	0	0	0	987.03
QUESTION 22 (put 1 next to response	**OVERALL AVERAGE**			0	0	0	0	0	0	
Apartment	16		3%	16	0	0	0	0	16	
Duplex	12		2%	14	0	0	0	0	14	
Mobile Home	6		1%	7	0	0	0	0	7	
Single family house	497		91%	524	0	0	0	0	524	
Other (please specify)	15		3%	15	0	0	0	0	15	
QUESTION 23 (put 1 next to response	**OVERALL AVERAGE**			0	0	0	0	0	0	
Village	176	31%	35%	185	0	0	0	0	185	
Oldfields	75	13%	14%	78	0	0	0	0	78	
Knights Pond Rd. – Hooper Sands area	32	6%	5%	33	0	0	0	0	33	
Emery's Bridge	46	8%	9%	49	0	0	0	0	49	
Tatnic/Belle Marsh	48	8%	9%	49	0	0	0	0	49	
Witchtrot – York Woods Rd.	39	7%	7%	44	0	0	0	0	44	
Old Mill	42	7%	7%	43	0	0	0	0	43	
Agamenticus Estates	73	13%	13%	78	0	0	0	0	78	
Woodland Hills	6	1%	1%	7	0	0	0	0	7	
QUESTION 24 (put 1 next to response	**OVERALL AVERAGE**			0	0	0	0	0	0	
Greater Portsmouth/Kittery	147		40%	156	0	0	0	0	156	
Durham, Dover or Rochester	54		15%	57	0	0	0	0	57	
Sanford, North Berwick or Wells	22		6%	22	0	0	0	0	22	
Boston	29		8%	30	0	0	0	0	30	
Other (please specify)	118		32%	126	0	0	0	0	126	


Response By Neighborhood
Agamenticus Estates 14%
Woodland Hills 1%
Village 32%
Old Mill 8%
Witchtrot – York Woods Rd. 7%
Tatnic/Belle Marsh 9%
Emery's Bridge 9%
Knights Pond Rd. – Hooper Sands area 6%
Oldfields 14%


Work Location
Workers
160
140
120
100
80
60
40
20
0
147
54
22
29
118
Greater Portsmouth/Kittery
Sanford, North Berwick or Wells
Other (please specify)
Location
Series1

A. Community Profile

B. Economy

C. Housing

D. Transportation and Roads

E. Public Facilities

F. Downtown

G. Natural Resources

H. Water Resources

I. Agricultural, Forestry and Wildlife Resources

J. Historical, Archeological and Cultural Resources

K. Land Use

L. Fiscal Capacity

GOALS AND STRATEGIES

A. COMMUNITY PROFILE

1. Purpose

Population demographics comprise one of the most basic elements of a comprehensive plan. In order to understand the Town's current and future needs, a detailed examination of community characteristics is necessary. This section aims to understand population impact on public facilities and services:

a. describe South Berwick's recent population trends;
b. discuss how these trends relate to and contrast with those in York County and the State; and
c. review likely future population trends.

2. Key Findings and Issues

South Berwick's population increased most dramatically by 31 percent in the 1980's and by 12 percent rate during the 1990's. The U.S. Census lists the 2000 year-round population at 6,671. York County as a whole realized similar population growth rates in the 1990's but grew at a much slower overall rate in the 1980's.

3. Public Opinion Survey and Community Vision Meeting Results

Many issues identified through the Community Vision meeting and town-wide survey were a function of population changes. Issues regarding threats to the water supply, traffic, overburden of Town services, loss of open space and access to good jobs are all directly related to population growth patterns. The Community Survey results show that many residents find it desirable to focus growth in the town center as it is currently. Maintaining the rural character of the Town was a key issue heard during the Community Vision meeting.

4. Historical Trends

South Berwick's population has fluctuated over the years. In 1820, six years after its incorporation, it had 1,475 inhabitants. The remainder of the 19th century was characterized by increases and decreases. From 1900 to 1940, the Town's population decreased steadily.

Since that point, the Town has experienced steady population growth with the largest ten-year increase occurring from 1980-1990 with the addition of 1,831 new residents, a 31 percent growth rate. Overall, the Town's year-round population increased by nearly 48 percent between 1970 and 2000. According to 2000 Census, South Berwick's population increased by approximately 12 percent from 1990 to 2000, with 6,671 residents in 2000. (See Table A.1).

Table A.1
Historical Population Trends 1820-2000

	South Berwick	% change	York County	% Change
1820	1,475	--	46,823	--
1830	1,577	6.47%	51,722	10.52%
1840	2,314	31.85%	54,034	4.28%
1850	2,592	10.73%	60,098	10.09%
1860	2,624	1.22%	62,107	3.23%
1870	2,510	-4.54%	60,174	-3.21%
1880	2,677	6.24%	62,257	3.35%
1890	3,434	22.04%	62,289	0.91%
1900	3,188	-7.72%	64,885	3.17%
1910	2,935	-.862%	68,526	5.31%
1920	2,955	0.68%	70,696	3.07%
1930	2,650	-11.51%	72,934	3.07%
1940	2,546	-4.08%	82,550	11.65%
1950	2,646	3.78%	93,541	11.75%
1960	3,112	14.97%	99,402	5.90%
1970	3,488	10.78%	111,576	10.91%
1980	4,046	13.79%	139,666	20.11%
1990	5,877	31.16%	164,587	15.14%
2000	6,671	11.90%	186,742	11.86%

5. Current Conditions

a. Age Characteristics

Table A.2 shows the age distribution comparisons between South Berwick, Berwick, North Berwick, Kittery, York County and the State of Maine. South Berwick age distributions in the year 2000 were fairly consistent with the County and State percentages. The greatest difference between the Town, its neighbors, the County and the State is that South Berwick has more school aged children and fewer persons 65 years and older.

The 20-44 year age category represents the highest percentage for all three study areas. Thirty-six percent of persons in South Berwick were between the ages of 20 and 44 in the year 2000. The upper and lower ends of the age spectrum represent the lowest percentage of population in South Berwick with eight and seven percent respectively.

Table A.2
Population by Age 2000

	South Berwick		Berwick		Kittery		North Berwick		York County		Maine	
Age	**Number**	**Percent**	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-4	**469**	**7.03%**	395	6.22%	565	5.92%	249	5.80%	11,016	5.9%	70,726	5.56%
5-19	**1,690**	**25.33%**	1,649	25.96%	1,678	17.58%	1,006	23.43%	39,326	21.06%	264,759	20.82%
20-44	**2,420**	**36.28%**	2,353	37.04%	3,488	36.55%	1,495	34.82%	64,751	34.67%	440,256	34.61%
45-64	**1,531**	**22.95%**	1,350	21.25%	2,364	24.77%	1,100	25.625	46,220	24.75%	315,783	24.83%
65+	**561**	**8.41%**	606	9.54%	1,448	15.17%	443	10.32%	25,429	13.62%	183,402	14.42%
Total	**6,671**	**100%**	6,353	100%	9,543	100%	4,293	100%	186,742	100%	1,271,923	100%
Source: U.S. Census 2000												

Public school enrollment figures from 1970 to 2000 are shown in Table A.3 for both South Berwick and York County as a whole. This table clearly shows the dramatic increase in enrollment numbers in South Berwick as compared to the County. From 1970 to 2000, a total of 562 additional students populated the public schools representing a 37 percent increase. A 20 percent increase occurred between 1990 and 2000. As a whole, York County only increased public school population by slightly less than 10 percent during the same time period.

Table A.3
School Enrollment 1970-2000

	1970	1980	1990	2000	% change 1970-2000	% change 1990-2000
South Berwick	940	935	1,199	1,502	59.79%	25.27%
York County	24,989	28,006	29,070	32,204	28.87%	10.78%

Source: ME Education Dept. April 1 Census of Students Educated at Public Expense

b. <u>Educational Attainment</u>

The US Census tracks the educational attainment of persons aged 25 years and older. According to the 2000 Census, there were 4,297 persons in this age group. Of this group, about 91.4 percent of South Berwick residents were high school graduates or higher, compared to about 86.5 percent for York County. Approximately 25 percent of this age group had a bachelor's degree or higher, compared to a 23 percent rate for the County, showing educational attainment levels in South Berwick are slightly above those of York County.

Table A.4
Educational Attainment 2000 – persons 25 Years and older

	South Berwick		York County		Maine	
Educational Level	**Number**	**Percent**	Number	Percent	Number	Percent
8 years or less	**82**	**2%**	6,583	5%	47,183	5%
9th-12th (no diploma)	**288**	**7%**	10,594	8%	80,105	9%
High School Graduate	**1,474**	**34%**	44,641	35%	314,600	36%
Some college-no degree	**924**	**22%**	26,076	20%	165,111	19%
Associate's Degree	**443**	**10%**	10,508	8%	63,934	7%
Bachelor's Degree	**766**	**18%**	19,851	16%	129,992	15%
Graduate or Professional Degree	**320**	**7%**	9,338	7%	68,968	8%
Total	**4,297**	**100%**	127,591	100%	869,893	100%

Source: U.S. Census 2000

c. Households and Household Size

According to the 2000 Census, South Berwick's median household size was 2.76 as compared to 2.39 for York County and 2.47 for the State of Maine. The number of households in South Berwick in 2000 was 2,403.

Household sizes both nationally and in York County have shown a steady decrease between 1970 and 1990 due to factors such as higher divorce rates and the tendency for families to have fewer children. Household sizes are important in estimating the number of housing units that will be built in the future. It is expected that further decreases in household size will be minimal. All South Berwick residents are assumed to live in households as opposed to group quarters such as nursing homes, dormitories or other institutions.

d. Income

According to the 2000 Census, the median household income for South Berwick in 1999 was $53,201. This was considerably higher than the County median of $37,240 and the State median of $43,630. Neighboring communities also have higher median household incomes than the County and State. The towns of Eliot and York both have slightly higher median household incomes while the towns of Berwick, North Berwick, Wells and Rollinsford, NH all have lower median income levels than South Berwick. Notable, though, is 7.1% of households over the age of 65 were below the poverty level. This figure is below the York County average, but higher than several surrounding communities, with the exception of North Berwick.

Table A.5
Median income and households in poverty – 1999

	Median Income in 1999		Income in 1999 Below poverty level			
			Percent of Population for whom poverty status is determined			
	Households	Families	All ages	Related children under 18 years	65 years and over	Percent of Families
South Berwick	**$53,201**	**$59,330**	**2.9%**	**1.3%**	**7.1%**	**2.8%**
Berwick	$44,629	$53,776	8.3%	9.%	15.9%	6.9%
Kittery	$45,822	$53,343	7.6%	11.9%	6.6%	5.7%
North Berwick	$46,883	$51,753	5.4%	9.2%%	1%	4.2%
Wells	$46,314	$53,644	5.4%	3.8%	5.6%	3.1%
York County	$46,630	$51,419	8.2%	9.9%	8.5%	5.9%

Source: U.S. Census 2000

The various age groups in 1999 had unusually low poverty rates when compared to the County and the State. There were no families with children under the age of 5 in poverty. Likewise, there were no families with only adult females present in poverty. Poverty would appear to be the greatest problem for unrelated individuals aged 15 years and older. This group would most likely need human services programs.

e. Other Information

The 2000 Census figures show mobility rates among South Berwick residents. About 64 percent of those aged five or older have lived in the same house since 1995, compared to 58 percent for York County. About 66 percent of the population has lived only in South Berwick while 27 percent have lived in a different county or state. Similarly, 31.6 percent of York County residents had lived in a different county or state. Therefore, South Berwick residents have a slightly lower rate of mobility than the County as a whole.

In 2000, the Town was primarily comprised of Caucasian individuals or 98.4 percent of the Town's population. The U.S. Census reported 68 residents of Asian origin, 36 of Native American descent, 48 of Hispanic origin, and 32 residents of Black or African American.

6. Projected Population

Small town populations are very difficult to project because of the large number of factors affecting growth and decline. Any estimate must be considered general and should be revised at least every 5 years as more up-to-date projections become available from the Maine State Planning Office. Based on the current data South

Berwick has a current population of 7,436. South Berwick is expected to have a population of 8,189 by 2010, and a population of 8,946 by 2015. This change represents a 34.10 percent increase from 2000 to 2015 and represents the highest population increase in comparison with surrounding communities. Kittery is expected to have a decrease in population while Berwick is expected to have over a 33 percent increase.

Table A.6

Population Projections

	1990	2000	2005	2010	2015	% Change 2000 - 2005	% Change 2000 - 2015
South Berwick	**5,906**	**6,671**	**7,436**	**8,189**	**8,946**	**11.47%**	**34.10%**
Berwick	5,995	6,353	7,072	7,777	8,486	11.32%	33.57%
Eliot	5,329	5,954	6,344	6,683	6,990	6.55%	17.40%
Kittery	9,372	9,543	9,119	8,471	7,640	-4.44%	-19.94%
North Berwick	3,793	4,293	4,753	5,201	5,648	10.71%	31.56%
York County	165,220	186,742	201,199	214,344	226,757	7.74%	21.43%
Maine	1,231,719	1,277,284	1,284,470	1,372,095	1,419,500	56.00%	11.13%

Source: Maine State Planning Office

Please see **Population Projection/Growth Area Memorandum**, by Appledore Engineering, Inc. REVISED January 19, 2007 for Inventory and Analysis of population projections and the designated growth areas to accommodate the anticipated housing need. Please see **Figures 1-9** prepared by Edwards & Kelsey, 1/05/07 that illustrate the Growth Area zoning, limitations and available land for development.

B. ECONOMY

1. Purpose

An understanding of the local and regional economy assists to assess a town's current and future needs. The number of local jobs will affect future growth. If the Town attracts large numbers of commuters, this could affect traffic patterns and mean that South Berwick is becoming more of a "bedroom" community. Specifically, this section aims to:

a. describe employment trends;
b. describe the local and regional economy; and
c. discuss likely future economic activity in South Berwick.

2. Key Findings and Issues

In 2000 approximately 46 percent of South Berwick's population was in the labor force. Overall, unemployment rates in South Berwick are below the average rates for both York County and the State of Maine.

The largest percent of the South Berwick's labor force, 18 percent, was employed in manufacturing. The next largest employment sectors were education and health services, which accounted for 17 percent of the labor.

Many South Berwick residents commute to jobs out of Town while residents from other towns commute to work in South Berwick.

3. Public Opinion Survey and Community Vision Meeting Results

The majority of residents who responded to the Community Survey believe that the increase of property taxes is one of the most serious challenges facing the Town. Of those surveyed, 40 percent are employed in the greater Portsmouth/Kittery area, 8 percent work in Boston, and 15 percent work in the Durham/Dover/Rochester area. Only 4 percent of those surveyed have a household income of less than $20,000. The majority, 55 percent of those responding, have a household income of $40,000 or greater.

Results from the Community Vision meeting illustrated that many participants felt small business was important to South Berwick. Those attending also felt a stable tax rate was important.

4. Recent Employment Trends

a. Employment and Unemployment

The labor force is comprised of those persons aged 16 and older who are able to work. According to 2000 figures from the US Census approximately 3,602 people, or about 46

percent of South Berwick's population, were in the labor force (see Table B.1). These figures only consider persons employed or looking for work. Therefore, these figures do not include self-employed persons or those who are not looking for work. Overall, unemployment rates in South Berwick are below the average rates for York County and the State of Maine.

Table B.1
Full Time Employment Trends 2000

	South Berwick	York County	Maine
Labor Force	**3,602**	98,445	655,176
Employment	**3,520**	98,016	624,011
Unemployment	**82**	3,429	31,165
% Unemployed	**2.3%**	3.5%	4.99%

Source: U.S. Census 2000

b. <u>Employment by Sector</u>

Table B.2 compares employment by industry sector for South Berwick and York County as reported by the 2000 US Census. The industry sector refers to the type of industry the employer operates, not the actual jobs performed by workers. This table refers to all South Berwick residents who are employed, whether they worked in South Berwick or commuted elsewhere.

The largest percent of the South Berwick's labor force, 18 percent, is employed in manufacturing. This reflects the importance of this industry sector to the South Berwick economy. This percentage is nearly equal to the proportion of York County's labor force in this sector.

The next largest employment sectors are education and health services, which accounts for 17 percent of the labor force. However, South Berwick has a smaller percentage of persons employed in this sector than does York County.

Agriculture, forestry and fisheries account for less than one percent of the full time labor force, slightly less than the proportion for York County as a whole. This clearly depicts the decline of a formerly significant sector the local economy.

Table B.2
Employment by Industry Sector 2000

	South Berwick		York County	
Category	**Number**	**Percent**	Number	Percent
Agriculture, Forestry & Fishing	**22**	**.63%**	993	1.05%
Construction	**205**	**5.82%**	7,097	7.47%
Manufacturing	**635**	**18.04%**	17,670	18.60%
Wholesale Trade	**119**	**3.38%**	3,796	4.00%
Retail Trade	**462**	**13.13%**	12,085	12.72%
Transportation	**165**	**4.69%**	3,982	4.19%
Information	**93**	**2.64%**	1,980	2.08%
Finance, Insurance & Real Estate	**300**	**8.52%**	6,327	6.66%
Professional, Scientific, Management, Administrative & Waste Management services	**333**	**9.46%**	6,491	6.83%
Educational, Health & Social Services	**599**	**17.02%**	19,598	20.63%
Arts, Entertainment, Recreation, Accommodation & Food Services	**285**	**8.10%**	7,515	7.91%
Other Services	**137**	**3.89%**	4,252	4.48%
Public Administration	**165**	**4.69%**	3,230	3.40%
Total	**3,520**	**100%**	95,016	100%

Source: U.S. Census 2000

In 2000, about 74 percent of the labor force was employed in the private sector, which is slightly less than the York County average (see Table B.3). About 18 percent of employed persons in South Berwick were government workers as compared to 14 percent for York County. The slightly higher rate of government workers in South Berwick, as compared to the County is likely due to the proximity of the Portsmouth Naval Shipyard. With the Shipyard facing an uncertain future, this may present a vulnerability to the South Berwick's employment mix. The combination of finance, insurance, real estate and professional, including scientific, management, administrative and waste management services account for 18 percent of employment. This segment most likely represents a growth area in response to the employment decline in the public and manufacturing sectors.

Table B.3
Class of Worker, Employed Persons 16 Years and Over

	South Berwick		York County	
	Number	**Percent**	Number	Percent
Private Wage & Salary	**2585**	**73.40%**	73,958	77.80%
Fed/State/Local Govt.	**619**	**17.60%**	13,045	13.70%
Self Employed	**305**	**8.70%**	7,789	8.20%
Unpaid Family Member	**11**	**.30%**	224	.20%
Total	**3520**	**100%**	95,016	100%

c. <u>Commuting Patterns</u>

The employment data cited above refer to the entire civilian labor force in South Berwick, regardless of where employment location. Many South Berwick residents commute to jobs out of Town while residents from other towns commute to work in South Berwick. The 2000 U.S. Census reported a mean travel time of 26.8 minutes for South Berwick residents, slightly longer than the mean travel time of 25.8 minutes for York County. While 87.8 percent of South Berwick residents commute to work alone, far less people at 81.3 percent drove alone in York County. About 6 percent of both South Berwick and York County residents either worked from home or walked to work.

Table B.4
Journey to Work- 2000

MODE OF TRANSPORTATION

	South Berwick	York County
Total Workers: 16 years and over	**3,508**	93,760
Car, Truck or Van		
Drove Alone	**3081**	76,267
Carpooled	**150**	10,213
Public Transportation		
Bus or Trolley Bus	**43**	509
Streetcar or Trolley Car	**0**	15
Railroad	**0**	38
Ferryboat	**0**	2
Taxicab	**0**	145
Other		
Motorcycle	**9**	9
Bicycle	**0**	141
Walk	**99**	2,252
Other	**16**	499
Worked at home	**110**	3,670

TRAVEL TIME TO WORK (in minutes)

Total workers 16 and over, not working at home	**3,398**	90,090
Less than 5	**89**	3,494
5 to 9	**198**	10,461
10 to 14	**310**	13,117
15 to 19	**436**	11,595
20 to 24	**796**	12,372
25 to 29	**377**	6,011
30 to 34	**524**	12,752
40 to 44	**181**	4,052
45 to 59	**157**	6,714
60 to 89	**123**	3,928
90 or more	**126**	2,431

Source: U.S. Census

d. Employers

South Berwick enjoys a wide variety of small to medium sized businesses. There are no "large" employers in town. Employment opportunities range from retail to industrial, from food to medical services. The majority of businesses in Town employ 1-10 people.

5. Projected Future Employment and Regional Issues

As a relatively small town, the future economy of South Berwick will remain dependent on the region as a whole for sources of new jobs. At the same time, it will have its own sources of employment such as manufacturing and small businesses. It is important the Town remain involved in regional economic development activities while taking measures to preserve and assist local businesses. It is also important to anticipate a likely increase in the number of independent businesses, and employees who, by using the Internet and other communication technologies, may connect electronically to a distant employer. As a result, more people may start working from their homes. This trend is growing nationally and reflects a shift from manufacturing locations.

C. HOUSING

1. Purpose

A comprehensive plan should contain a thorough analysis of a town's housing trends. Critical issues include housing conditions, affordability, and estimated future housing needs. Specifically, this section aims to:

a. describe recent trends in South Berwick's housing stock in terms of the types and number of units created;
b. discuss housing affordability; and
c. present an estimate of future housing needs based on population projections.

2. Community Survey Results

Responses to the 2003 Town Survey indicated some concern about the lack of affordable housing. When asked whether the lack of affordable housing was a serious challenge facing South Berwick in the next five years, most respondents indicated that they "somewhat agree."[1] However, the response to this question should be viewed in light of the fact that the survey did not achieve a representative cross-section of Town residents. 95% of respondents reported owning their own home, while only 5% of those responding to the survey were renters. In comparison, 2000 U.S. Census data indicates of 2,403 occupied housing units, 78 percent were owner-occupied and 22 percent were renter-occupied.

In terms of new housing development, there appears to be support for "cluster," or "open space/conservation" residential subdivisions. Approximately 65% of those who responded to the survey stated a preference for some type of open space development, as compared to 22 percent who stated a preference for continuing the Town's 2-acre lot size requirement.[2]

3. Recent Housing Trends

This section provides an overview of the current housing situation in South Berwick and also attempts to place the Town's housing issues in a regional context. In developing this housing inventory, data was drawn from the U.S. Census Bureau, the Maine State Housing Authority and the Town of South Berwick.

a. Existing Housing Supply

Between 1980 and 2000, the total number of housing units (year-round and seasonal) in South Berwick increased by about 67 percent, from 1,487 units in 1980 to 2,488 units in 2000. South Berwick saw its greatest rate of increase between 1980 and 1990 (shown

[1] Question # 3, 2003 Town survey
[2] Question #8, 2003 Town survey

in table C.1), when the number of housing units increased by over 50 percent. This rate of growth was largely the result of two significant housing developments – Old Mill and Agamenticus Estates. Housing growth slowed considerably between the years 1990 and 2000, to 10 percent, with South Berwick moving from having the highest growth rate of the six communities, to fifth and with a growth rate lagging York County.

The rate of housing growth in South Berwick between 1980 to 2000 exceeded both the County's growth rate and the growth rate of the five communities surrounding the Town. In fact, the only community which exceeded South Berwick in terms of the rate of housing growth was Wells.

Unlike some of the neighboring communities such as Wells and York, a very small percentage of South Berwick's housing stock is seasonal. About 1 percent of South Berwick's housing supply is classified by the U.S. Census as for "seasonal, recreational or occasional use", as compared to 17.8 percent for all of York County. Thus, housing growth in South Berwick is comprised primarily of year-round housing units, with housing growth in Wells and York includes a greater percentage of seasonal homes and, thus, temporary residents.

Table C.1
Change in Total Housing Supply (Occupied and Vacant) *1980-2000*

	1980	1990	2000	% Change '80 – '90	% Change '90 – '00	% Change '80 – '00
South Berwick	**1,487**	**2,262**	**2,488**	**52.1**	**10**	**67.3**
North Berwick	1,145	1,449	1,705	26.6	17.7	48.9
Berwick	1,521	2,222	2,414	46.1	8.6	58.7
Eliot	1,827	2,019	2,418	10.5	19.8	32.3
Wells	4,582	5,217	7,794	13.9	49.4	70.1
York	5,824	6,504	8,053	11.7	23.8	38.3
6-Town Total	*16,386*	*19,673*	*24,872*	*20.1*	*26.4*	*51.8*
York Co. Total	*66,900*	*79,941*	*94,234*	*19.5*	*17.9*	*40.9*

Source: US Census 2000

b. Housing Unit Type

According to 2000 Census data shown in Table C.2, about 78 percent of all housing units in South Berwick are single-family homes. Duplexes currently account for about 9 percent of all housing units in South Berwick, and multi-family units (buildings with more than two apartments) for about 8 percent. Mobile homes account for 5 percent of the housing stock.

South Berwick has a greater percentage of its housing supply in single-family and duplex homes than York County overall. This means that multi-family units and mobile homes comprise a smaller percentage of the housing stock than the County as a whole.

In fact, the number of multi-family units and mobile homes has dropped since 1990. This is a significant trend, particularly in light of housing affordability issues the Town is facing, in both housing types are considered to be affordable housing options.

Table C.2
Housing Units by Type (Total Housing Units) South Berwick and York County: 1990 and 2000

	1990		2000	
	South Berwick	York County	**South Berwick**	York County
1-Unit, Detached	**1,543 (68.2%)**	52,620 (65.8%)	**1,814 (72.9%)**	63,636 (67.5%)
1-Unit, Attached	**43 (1.9%)**	2,104 (2.6%)	**118 (4.7%)**	2,931 (3.1%)
Duplex	**199 (8.8%)**	6,087 (7.6%)	**217 (8.7%)**	6,506 (6.9%)
Multi-family (3+ units)	**306 (13.5%)**	12,131 (15.2%)	**207 (8.3%)**	13,812 (14.6%)
Mobile Home	**150 (6.6%)**	5,936 (7.4%)	**125 (5.0%)**	6,988 (7.4%)
Other (Boat, RV, Van)	**21 (0.9%)**	1,063 (1.3%)	**7 (0.3%)**	361 (0.4%)
Total Units	**2,262 (100%)**	79,941 (100%)	**2,488 (100%)**	94,234 (100%)

Source: US Census 2000

As home construction costs increase, mobile homes and pre-site-built modular homes have become an affordable alternative for many families. The quality of mobile homes has improved significantly in recent years. All mobile homes built after June 15, 1976 have been built in accordance with the National Mobile Home Construction and Safety Standards Act of 1974. Thus, newer mobile homes do not suffer the physical deterioration seen in many of the older homes. In fact, many of the new mobile home models are double wide and have pitched roofs. This means that some of the mobile homes recorded by the Census may be mistaken for single-family homes by the casual observer.

Under 30-A MRSA 4358 (the state statute regulating manufactured housing), municipalities must allow mobile homes on individual lots in a number of locations where other single-family residences are permitted. Mobile homes may not be restricted solely to mobile home parks, and towns may not impose overly restrictive standards on parks. Towns may, however, establish design criteria to assure mobile homes are well sited and look attractive, provided that these standards don't have the effect of banning mobile homes. 30-A MRSA 4358 also requires all municipalities permit mobile home parks in "a number of environmentally suitable locations". Municipalities must also give "reasonable consideration" to permitting existing mobile home parks to expand in their existing locations.

South Berwick's Zoning Ordinance allows mobile homes on both individual lots as well as in mobile home parks. This allowance does help the Town achieve diversity in its housing stock, and is important in helping to provide opportunities for the development of affordable housing.

c. Housing by Tenure

The 2000 US Census indicates that about 78 percent of all occupied housing units in South Berwick are owner occupied (Table C.3) while the remaining 22 percent are renter occupied. Census data shows while the number of renter-occupied units increased by 16 units between 1990 and 2000, the percentage share of the total housing supply decreased from 24 percent to 22 percent. The number of owner-occupied units increased by 283 over the same time period. This data indicates that South Berwick is a community of predominantly owner-occupied homes, with a greater percentage of its residents in an ownership situation than in York County overall.

Rental housing in South Berwick is, on average, more expensive than that for York County as a whole. According to the U.S. Census, the median gross monthly rent in South Berwick in 2000 was $610, compared to $568 for York County (Table C.4). These data do not reflect the high value of any short-term seasonal rentals.

Table C.3
Tenure of Occupied Housing Units, South Berwick: 1990, 2000

	1990		2000	
	South Berwick	York County	**South Berwick**	York County
Renter-Occupied	**504 (24.0%)**	17,535 (28.4%)	**520 (21.6%)**	20,393 (27.4%)
Owner-Occupied	**1,600 (76.0%)**	44,313 (71.6%)	**1,883 (78.4%)**	54,170 (72.6%)
Total Occupied Units	**2,104 (100%)**	61,848 (100%)	**2,403 (100%)**	74,563 (100%)

Source: US Census 2000

Table C.4
Gross Rent[3] of Renter-Occupied Units, South Berwick and York County: 2000

	South Berwick		**York County**	
Monthly Rent	**Number**	Percent	Number	Percent
Less than $200	**10**	**2**	1155	5.8
$200 to $499	**119**	**23.9**	5677	28.4
$500 to $749	**184**	**37**	7993	39.9
$750 to $1,499	**143**	**28.8**	3568	17.8
$1,500 or More	**0**	**0**	204	1
Median Gross Rent	**$610.00**	**91.7****	$568.00	93.9**

Source: US Census 2000
*** Median gross rent was not computed for the remainder of the units.*

[3] Gross rent is adjusted to include rent and a factor for utilities

Table C.5 shows the reported value of specified owner-occupied units[4] in South Berwick and York County, along with a calculated median value, while Table C.6 provides a comparison between reported values in South Berwick to those of several neighboring communities. It should be pointed out these are values as reported by the homeowners, and thus may be different from actual market prices. In lieu of real estate sales data, the reported values can be used as a general comparison of housing prices in South Berwick versus the County.

This data reflects the diversity in price of South Berwick's owner-occupied housing stock, particularly as compared to housing in York County overall. While South Berwick does have a higher median owner-reported home value than the County overall ($131,700 for South Berwick versus $122,600 for York County), about 99 percent of owner-occupied housing in South Berwick was reported at a value of less than $300,000, as compared to 94% of all owner-occupied housing in York County. The greater percentage of homes in the $300,000+ range for the County likely reflects water-front properties in the coastal communities. However, York County does have a higher percentage of its total owner-occupied housing stock with a reported value of less than $100,000 than does South Berwick.

Since the U.S. Census data reported in 2000, a significant market shift upward on value of specified owner-occupied housing units has occurred. As a result of a town-wide revaluation in 2002-2003, the value of specified owner-occupied homes has increased to an average price of $202,569 as reported by the South Berwick Town Assessor. This is also substantiated by the median home price for single-family homes in Table C.12 as reported by the Maine State Housing Authority.

Table C.5
Value of Specified Owner-Occupied Housing Units, 2000

	South Berwick		**York County**	
Value	**Number**	**Percent**	Number	Percent
Less than $50,000	**33**	**2.1**	542	1.3
$50,000 to $99,999	**311**	**20**	12,329	30.3
$100,000 to $149,000	**697**	**44.7**	14,740	36.3
$150,000 to $199,999	**367**	**23.6**	6,711	16.5
$200,000 to $299,999	**126**	**8.1**	3,801	9.4
$300,000 or More	**24**	**1.5**	2,519	6.2
Total	**1,558**	**100**	40,642	100
Median Value	**$131,700**		**$122,600**	

Source: US Census 2000

[4] The U.S. Census Bureau collects owner-occupied data for what it calls "specified owner occupied housing." This includes only single-family detached housing units, and excludes manufactured housing and condominiums.

Table C.6
Comparison of the Cost of Housing, 2000

	Median Gross Rent	Median Reported Home Value
South Berwick	**$610**	**$131,700**
North Berwick	$549	$108,400
Berwick	$526	$110,800
Eliot	$650	$148,900
Wells	$638	$151,200
York	$773	$190,500
York County	*$568*	*$122,600*

Source: US Census 2000

Table C.6 provides a summary of Census-defined housing costs in South Berwick as compared to neighboring communities in Maine.

In addition to looking at rental rates and housing value, it is important to understand the relationship between housing supply and demand in the Town. According to the U.S. Census, in 2000 South Berwick had a 0.6 percent vacancy rate for owner-occupied homes, compared to 0.9 percent for York County. Normally, a 2 percent vacancy rate is considered desirable for owner-occupied homes.

In 2000, South Berwick had a 3.2 percent vacancy rate for rental housing, as compared to a 5.4 percent rental vacancy rate for York County. A 5 percent vacancy rate is normally considered desirable for rental housing to allow people reasonable opportunities to find lodging.

The significantly lower vacancy rates for both owner-occupied and rental housing in South Berwick are clear indicators of a housing shortage. Further contributing to the housing issue in Town are median rental rates and home values higher than the County figures.

d. Housing Conditions

Housing can be generally rated as standard or substandard. A standard home is one that is in good condition with basic amenities such as adequate heating, complete plumbing and kitchen facilities. A substandard house usually either requires repairs beyond normal maintenance or lacks some basic amenities. While there are no data on the number of homes that are substandard due to overall condition, the U.S. Census does have data on basic amenities.

According to the South Berwick Water District, about 60 percent of all housing units in South Berwick depend on a water source other than a public system or private company. Generally, units that do not have a well or public or private water depend on a spring or an open source of water that may be unsafe.

Table C.7
Source of Water; Total Housing Units

	1990	2000
Public System or Private Company	1,317 (58.2%)	1,511 (60.5%)
Onsite Water Source	945 (41.8%)	988 (39.5%)
Total	**2,262 (100%)**	**2,499 (100%)**

Source: US Census 2000

In 1990, 0.9 percent of South Berwick dwellings disposed of their sewage by a method other than a septic tank, cesspool, or public sewer (Table C.8). By 2003, the percentage of dwellings in South Berwick disposing of sewage by means other than public sewer, septic tank or cesspool dropped to 0.2 percent. The lack of adequate sewage disposal means unhealthy conditions may exist, such as discharges of untreated sewage into water bodies. There are matching state grant monies available through the Maine Department of Environmental Protection's Small Community Grants Program to help install acceptable disposal systems.

A home would also be considered substandard if it is overcrowded, having an average of more than 1 person per room. The 2000 U.S. Census calculated that 40 housing units in South Berwick (1.7 percent of all occupied housing units) had more than one person per room. While this is slightly higher than York County overall, in which 1.2 percent of housing units had more than 1 person per room, overcrowding does not appear to be a significant problem in South Berwick.

Table C.8
Sewage Disposal 1990 & 2003

	1990	2003
Public Sewer	1,171 (51.8%)	1,375 (55.0%)
Septic Tank or Cesspool	1,069 (47.3%)	1,120 (44.8%)
Other	22 (0.9%)	4 (0.2%)
Total	**2,262 (100%)**	**2,499 (100%)**

Source: 1990 Census, South Berwick Sewer District

5. Affordable Housing

Affordable housing is a concern for all towns in the region. While even middle-income households are affected by the high cost of housing, it is a particular problem for very low-income and low-income households, which are typically those households who rent rather than own their own home. According to the Maine State Housing Authority, approximately one-third of all households in South Berwick (32.5 percent) were considered low, very low or extremely low income in 2002. This compares to 39.2 percent for all of York County. Renter households are in more dire straits than owner

households; in 2002, 53.6 percent of renter households were low, very low or extremely low income, as compared to 27.8 percent of owner households.

For comprehensive planning purposes, the State of Maine defines affordable housing as decent, safe, and sanitary living accommodations that are affordable to very low and low-income households. The state encourages all towns to assure that 10 percent of all new housing is affordable to very low-income and low-income groups. Traditionally, to be considered affordable, housing should cost less than 30 percent of income for renters and less than 33 percent of income for homeowners. Many housing experts are now advocating 35 percent of household income to housing costs as a more realistic threshold.

Despite South Berwick having a higher reported median home value than York County overall, Census data in Table C.9 indicates about 12 percent of South Berwick homeowners pay 35 percent or more of their income for housing, as compared to 15 percent of York County homeowners. As shown in Table C.10, about 20 percent of South Berwick renters spend 35 percent or more of their household income on housing, compared to 28 percent of all renters in York County

Table C.9
Selected Monthly Owner Costs as a Percentage of Household Income in 1999

Monthly Owners Costs as a Percent of Household Income	South Berwick	York County
Less than 15 Percent	**26.40%**	32.50%
15 to 29 Percent	**53.50%**	46.00%
30 to 34 Percent	**7.80%**	5.90%
35 Percent or More	**12.20%**	15.20%

Source: US Census 2000

Table C.10
Gross Rent as a Percentage of Household Income in 1999

Monthly Gross Rent as a Percent of Household Income	South Berwick	York County
Less than 15 Percent	**20.30%**	17.00%
15 to 29.9 Percent	**45.50%**	39.80%
30 to 34.9 Percent	**6.00%**	7.20%
35 Percent or More	**19.90%**	27.80%

Source: US Census 2000

Data from the Maine State Housing Authority (MSHA) further supports housing affordability as a serious problem in South Berwick. MSHA uses an affordability index to compare the cost of housing to incomes; an index of 1.00 indicates that household incomes are sufficient to allow the purchase of the median priced house. The MSHA

calculated an affordability index of 0.85 for South Berwick for the year 2002, meaning that a family at the median household income can afford 85 percent of the median home value in the Town. Table C.11 illustrates the relationship between income, home values and home purchase affordability in South Berwick as it existed over the past three years.

Table C.11
Affordability Index for South Berwick, 2000-2002

Year	Affordability Index*	Median Household Income	Home Price Affordable to Family at Median Income	Median Home Price in South Berwick**	Annual Income Needed to Purchase Median Home Price	Hourly Income Needed to Purchase Median Home Price
2000	0.96	$53,201	$141,654	$147,450	$55,378	$26.62
2001	1.01	$58,329	$158,006	$156,250	$57,681	$27.73
2002	0.85	$60,301	$169,673	$200,000	$71,079	$34.17

Source: US Census 2000

*An index of less than 1.0 is unaffordable, an index of more than 1 is affordable.
** Median home price for all homes, including single family, condominiums and multi-family.

Median home values for single family homes in South Berwick based on actual home sales are compiled by MSHA, and are shown in Table C.11. (It is important to note that the median home prices shown in Table C.11 above include single family, condominium and multi-family units, while the data in Table C.12 below includes single family homes only.) This information, while not directly comparable to the reported home values collected by the U.S. Census Bureau (shown in Tables C.5 and C.6), does support the Census findings that home values in South Berwick exceed those of York County overall, and also illustrates that home ownership is currently out of reach for those families at or below the median income level for the Town ($60,301 in 2002).

Table C.12
Median Home Price for Single Family Homes South Berwick and York County, 1998-2002

	South Berwick		York County	
Year	Sales Volume	Median Price	Sales Volume	Median Price
1998	88	$119,450	1,816	$112,000
1999	49	$129,900	1,918	$115,550
2000	69	$155,000	1,805	$131,850
2001	55	$170,000	1,823	$148,500
2002	75	$205,000	2,011	$171,000

Source: Maine State Housing Authority

6. Housing Demand Projections

A rough estimate of the future demand for housing in South Berwick can be calculated using the projected population from the Maine State Planning Office, and assuming a continued relationship between population residing in households, and a slight decrease in average household size over the period 2000 to 2015. Following these assumptions, shown in Table C.13, a total of 2,660 year-round households can be expected in the year 2010, an increase of nearly 260 households. Given recent trends in South Berwick, it is likely that most of these units will be single-family homes. However, this estimate is limited in two ways. First, these projections assume a continuation of the current vacancy rates, which as noted earlier in this chapter, are considered to be below normal and thus indicative of a "tight" housing market. In addition, these projections do **not** include seasonal homes.

Table C.13
Projected Year-Round Occupied Dwelling Units Demand 2000 - 2015

	2000 (Census)	2010 (Projected)	2015 (Projected)	Change 2000 - 2015
Population	6,671	7,320	8,946	2,275
Number of Households	2,403	2,660	2,850	447
Population Residing in Households	6,635	7,283	8,946	2,311
Average Household Size	2.76	2.60	3.14	+0.38
Occupied Dwelling Units	2,403	2,801	2,850	447

Regional Affordability Gap Analysis

Another way to examine affordable housing needs is to look at the need (or demand) on a regional basis. There is certainly ample evidence that affordable housing is a regional issue with solutions needed which take into account the economy, transportation and housing needs of the entire county. With that in mind, SMRPC has constructed a regional affordability gap analysis which attempts to apportion the need for affordable housing through the region based on a number of variables (outlined below) rather than simply income and housing stock. The resulting gap or need. Is what the town should consider their affordable housing goal in the next ten years.

Step 1: Calculate Net Change in Households Through 2015

Net household change is based on projected employment growth and its relationship to new households.

- **In 2000, there were 99,079 working residents and 60,295 at-place jobs in York County, a ratio of 1.643 employed residents per at-place job.**

- **The ratio of working residents in 2000 to the number of households (74,563) was 1.33.**
- **The Maine Department of Labor projects 2015 at-place employment in York County as 66,978.**
- **At-place employment (66,978) * Employed residents per at-place job (1.643) = 110,061 working residents in 2015**
- **Working residents (110,061) / Ratio of working residents to households (1.33) = 82,828 households in 2015.**
- **Projected net change in households: 8,265**

Step 2: Calculate Future Regional Need for LMI Sale and Rental Units

Future regional need for LMI units is based on applying 2000 shares of owners and renters by income classification to household growth through 2015.

- **2000 Census: 72.6% of York County households owned their homes, 27.4% rented.**
- **Among households owning homes, 36.4% earned below 80% of the county median income.**
- **Among renting households, 69.6% earned below 80% of the county median income.**
- **Household breakdown:**
    - **Homeowners earning below 80% LMI: 26.4%**
    - **Renters earning below 80% LMI: 19.1%**
        - **Subtotal: below 80% LMI: 45.5%**
    - **Homeowners earning above 80% LMI: 46.2%**
    - **Renters earning above 80% LMI: 8.3%%**
        - **Subtotal: above 80% LMI: 54.5%**

- **Household Change from 2000-2015**

	Owners	Renters	Total
Below 80% LMI	2,181	1,584	3,765
Above 80% LMI	3,809	691	4,500
Total Households	**5,990**	**2,275**	**8,265**

- **Summary of need for units below 80% LMI from 2000-2015**
    1. **Owners: 2,181 units**
    2. **Renters: 1,584 units**
    3. **Total: 3,765 units**

Step 3: Allocate Future LMI Need to Each Municipality

- **Allocation of future units based on five municipal share factors:**
  1. **Share of total at-place jobs in the region – priority is to concentrate housing around employment centers to reduce sprawl**
  2. **Share of region's total property valuation – property valuation reflects affluence and presence of commercial/industrial tax base. Municipalities with higher valuations have a greater ability to provide for LMI families' needs**
  3. **Share of region's workforce – Working population is more important than total population when measuring need for workforce housing**
  4. **Share of region's existing total occupied units – Occupied units = households. Many communities have large supplies of seasonal units that are not occupied year-round**
  5. **Share of region's aggregate household income – Household income provides another measure of affluence and ability to meet the needs of low-income families**
- **Each factor was given equal weight and produced the following results:**

	Owner Units	Renter Units	Total Units
Acton	24	18	42
Alfred	25	18	43
Arundel	36	26	62
Berwick	57	41	98
Biddeford	254	185	439
Buxton	69	50	119
Cornish	12	9	21
Dayton	16	12	28
Eliot	65	47	112
Hollis	37	27	64
Kennebunk	149	108	257
Kennebunkport	69	50	119
Kittery	148	108	256
Lebanon	40	29	69
Limerick	22	16	38
Limington	26	19	45
Lyman	34	25	59
Newfield	12	9	21
North Berwick	55	40	95
Ogunquit	42	31	73
Old Orchard Beach	100	73	173
Parsonsfield	15	11	26
Saco	189	137	326
Sanford	211	153	364
Shapleigh	24	18	42

South Berwick	**63**	**45**	**108**
Waterboro	**57**	**41**	**98**
Wells	**135**	**98**	**233**
York	**196**	**142**	**338**
Totals	**2,181**	**1,584**	**3,765**

THIS NEED IS BASED ON 2000-2015 CHANGES. ANY UNITS BUILT SINCE 2000 WILL REDUCE THE MUNICIPALITY'S SHARE FROM THE AMOUNT SHOWN ON THE PRECEDING TABLE.

Based on the above analysis, and the construction (since 2000) of 14 affordable units, the towns affordable housing gap can be estimated to be 94 units.

7. Overview of Town Land Use Regulations

South Berwick has traditionally been a village-based community with a higher density in the village center, surrounded by more rural outlying areas. The availability of public water and sewer service in and around the village center has allowed, and continues to allow, higher densities in this part of the Town. Over the past decade, the development pattern has been changing, with large subdivisions in outlying areas.

The Town's Zoning Ordinance addresses housing affordability by providing opportunity for a diverse housing stock on a range of lot sizes, including multi-family apartments, duplexes, mobile homes (on individual lots as well as in parks), accessory apartments, and cluster-type developments. However, affordability is driven in great part by market forces beyond the Town's control.

The Town must also balance the need to preserve the character of the community and protect limited natural resources in all future planning.

8. Regional Housing Issues

The most pressing regional housing issue is that of affordability. The region has experienced significant population growth, housing construction and employment growth over the past decade. These trends, plus the growing demand for affordable housing to support population and economic growth in York County, nearby New Hampshire and Massachusetts, coupled with increasing land costs and the general cost of development, have all contributed to a situation where housing prices have escalated beyond the reach of many middle-income families.

While subsidized housing will continue to be needed for the lowest-income populations, affordable "workforce housing" has emerged as a concern not only of housing advocates but also policy makers and employers. The term workforce housing is used in reference to housing for employees such as school teachers, public safety

professionals and medical technicians. The fastest-growing population sector, retired households on fixed incomes, is not included.

9. Key Findings and Issues

South Berwick has seen a rapid increase in the number of housing units since 1980. In fact, the rate of housing growth in Town easily exceeded the County's growth rate over the past 20 years. The number of housing units in South Berwick grew from 1,487 units in 1980 to 2,488 units in 2000. This translates into an increase of 67 percent over the 20-year period, as compared to a growth rate of 41 percent for York County. Using current population projections, the demand for housing can be expected to grow to roughly 2,660 units by 2010.

Despite the increase in housing stock, however, affordable housing is a problem in South Berwick. According to data from the MSHA, in 2002, 70.3 percent of South Berwick households could not afford to purchase a median price home in the Town, and 56.8 percent of renter households could not afford the average 2-bedroom rent. While those households were obviously living in South Berwick, the data illustrates the proportion of households in Town that are "overpaying" for housing. However, housing affordability in Town is driven in great part by market forces beyond the Town's control. The Town's Zoning Ordinance addresses affordability by providing opportunity for a diverse housing stock, including multi-family developments, duplexes, mobile homes (on individual lots as well as in parks), accessory apartments, and cluster-type developments.

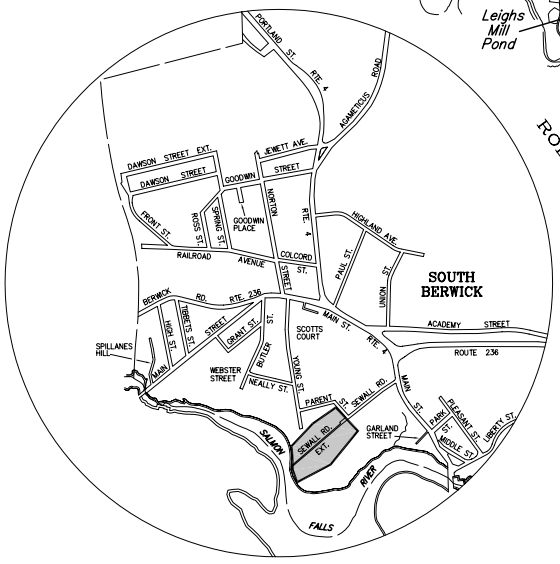
Senior citizens are a segment of the population with special housing needs. As baby boomers age, the number of residents in the 45-64 age group will increase. This age group's desire for alternative housing will have a significant influence on the housing market. Many in this age range will begin to trade down to smaller homes as their children leave home, and others will wish to move to congregate care or, ultimately, to an assisted living facility. It is important for the Town to consider its aging population and housing opportunities and deficits to allow those residents to remain in South Berwick.

Additional steps the Town could consider taking to further encourage the development of a diverse and affordable housing supply include density bonuses for the provision of affordable and/or elderly housing, and cultivation of a working relationship with local workforce housing groups to further encourage the development of this type of housing.

Certainly, however, the Town must also balance the demand for additional housing choices against the need to preserve the character of the community and protect limited natural resources in all future planning.

MAPS

Map C.1 Housing Development 1990-2004



South Berwick Village

LEGEND

SUBDIVISIONS 1994–2004

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REVISED AND REPRINTED TO MARCH 2005

TOWN OF
SOUTH BERWICK
YORK COUNTY, MAINE

SUBDIVISIONS 1994–2004

D. TRANSPORTATION AND ROADS

1. Introduction

Over the past fifteen years, public opinion surveys of South Berwick residents have consistently shown that traffic and transportation are at, or near, the top of the list of community concerns. Primary issues include increasing traffic volumes throughout the Town and the region, downtown traffic congestion and its impact, the safety of all modes of travel and the adequacy of downtown parking.

The Transportation section of the Comprehensive Plan is not simply a list of future transportation projects, but is a plan that establishes the overall goals and guiding policies for addressing transportation issues within South Berwick. Transportation has direct links with the land use, population and housing, natural resources, community services and facilities and recreation sections of the Plan. The transportation system and the guiding policies established in this chapter will affect the community's physical, social and economic setting.

An important factor in South Berwick's future will be the impact of continued commercial and residential growth on the transportation system. The Town, like many other communities, developed along waterways and trails connecting it to larger nearby communities. In contemporary times South Berwick has developed with reliance on the automobile and the highway network.

As South Berwick and the surrounding region have grown, the roadway network has expanded to serve newly developed areas. Steady increases in traffic volume, both in and through South Berwick, have increased congestion downtown and on Route 236. Maintenance and expansion of roads, wise planning of the location and extent of further development, and increased use of alternative modes of transportation (public transit, bicycling, walking) will all play an important role in the Town's future.

This Transportation chapter provides the information necessary to develop a plan of action for South Berwick's future transportation system. Sources include local knowledge and surveys, transportation data provided by the Maine Department of Transportation (MDOT), the Southern Maine Regional Planning Commission (SMRPC) and the U.S. Census Bureau.

2. Key Findings and Issues

Over the past 15 years public opinion surveys of South Berwick residents have consistently shown traffic and transportation are at, or near, the top of the list of community concerns. Specifically, major issues include: heavy traffic through the downtown area and on Route 236; heavy truck traffic, especially through downtown; traffic safety, speed limits, detouring of traffic onto local roads to circumvent downtown congestion, pedestrian and bicyclist safety and downtown parking facilities.

3. Community Survey Results

Responses to the 2003 Town Survey indicate that traffic and the condition of roadways are major concerns of Town residents. A majority of those who responded to the survey indicated that traffic is a serious challenge facing the Town in the near term as is, to a lesser degree, parking. The survey found that the need for improved in-town and rural roads is generally viewed as somewhat important, yet of lesser priority than other services such as police and fire protection and education. However, survey respondents ranked road maintenance and upgrading the second highest priority for expenditure of tax dollars, second only to public safety (police, fire and rescue).

4. Roadway Network and Classification

South Berwick's transportation network consists of approximately 75 miles of roadway. Major highways are State Routes 4, 91, 101 and 236. Routes 4 and 236 carry general north-south traffic, while Routes 91 and 101 carry east-west traffic. Routes 4 and 236 converge in downtown South Berwick, carrying a significant amount of traffic through the heart of the community. The balance of South Berwick's roads are local roads providing access to state highways or service roads for adjacent property owners that accommodate little or no through traffic.

This section provides detailed information on the Town's roadway network. It includes a description of the classification systems that determine maintenance and construction responsibilities and funding opportunities, and a detailed inventory of the roadway system.

In the early 1980s, the Maine Legislature authorized and directed MDOT to classify all public roads throughout the State. The basis of this classification system was that primarily regional or statewide needs should be the State's responsibility and roads serving primarily local needs should be a local responsibility. The State's classification system includes the following:

- *State Highways* are a system of connecting highways throughout the State, which serve arterial, or through traffic between communities. The State is responsible for all construction/reconstruction and maintenance on the 5.28 miles of arterial highway in South Berwick. Route 236 (except between Portland and Berwick Streets) and Route 4 are classified as minor arterials. Route 236 between Portland and Berwick Streets (approximately 0.46 miles in length) is a State Highway classified as a collector. The State is responsible for construction, reconstruction and summer maintenance, and the Town is responsible for winter maintenance on this segment of Route 236.

- *State Aid Highways* are collector roads not included in the system of State highways, but which serve as feeder routes connecting local service roads to the State highway system. The State is responsible for construction, reconstruction and summer maintenance of South Berwick's 3.22 miles of State Aid collectors. The Town is responsible for winter maintenance of these roads. State Aid collectors

include Routes 91 and 101, and Main Street from Berwick Road to the New Hampshire line.

- *Local Roads* are all other public roads not included on the State Highway or State Aid classifications. These roads are maintained entirely by the municipality, and based on the State System, serve primarily as local service roads providing access to adjacent land. There are approximately 60 miles of local roads in South Berwick.

  Because of increased residential growth, local roads including Agamenticus, Emery's Bridge and Witchtrot Roads are actually functioning as collectors.

In addition to the State classification system, there is the Federal Functional Classification system. The federal system complements the State's system, and is based on the type of service that is intended to be provided by the roadway. The federal classifications relate to traffic capacity and volume attributed to the roads, and are divided into rural and urban systems. They are important because they are used to determine where and under what conditions Federal highway funds may be utilized. Roads that have a functional class of collector or higher are eligible for Federal highway funds. The Maine Dept. of Transportation uses Federal Functional Classifications to prioritize and assign funding, as well as to design roadway improvements.

There are four functional classes represented in South Berwick as described below:

- *Principal arterials* serve major centers of activity, the highest traffic volume corridors and the longest routes. In addition, they generally carry the major portion of traffic entering and exiting the community.

- *Minor arterials* link and support the principal arterial system. Minor arterials are roads that place a greater emphasis on land access than the principal arterial and therefore offer a lower level of mobility. They serve as links between larger and smaller towns or as connections between collectors and the primary arterials.

- *Collectors* provide access to land uses along the roadway and circulation within residential neighborhoods, and/or to commercial and industrial areas. They differ from the arterial system in that the facilities on the collector system may penetrate residential neighborhoods. Conversely, the collectors also collect traffic from the local streets in residential neighborhoods and channel it into the arterial system.

- *Local* roads serve primarily to provide access to residential areas. They are designed for low-speed travel and to carry low volumes of traffic relatively short distances. Local roads are generally not eligible for federal funding for improvements or maintenance.

On a local level, collectors and local roads can often be broken down into more specific classifications based on known local roadway function. These modified classifications

can assist the appropriation of local funds. For example, with increased residential growth, Agamenticus, Emery's Bridge, Mountain and Witchtrot Roads have been functioning as collector roads rather than local roadways. Additionally, Alder Drive, Liberty Street, Colcord Street and Norton Street are all serving as unofficial bypass roads.

A road's functional classification is one factor in planning for possible growth into rural areas and for the future development of the town overall. Local streets are best suited for village/residential or very low density rural development. While some commercial and other non-residential development might be an appropriate land use along collectors, it is important that such development be designed so that it minimally disrupts traffic flow.

Design choices for highway projects also typically depend upon the roadway's functional classification. For example, arterials—which service primarily through traffic and often carry heavy vehicles – will typically have thicker pavement, wider lanes and shoulders, increased sight distance, minimal horizontal and vertical curves, and limited access points or curb cuts. Local roads tend to be narrower, windier and more accessible from abutting property. Also notable, private roads may be built to different standards.

A listing of South Berwick's highways and roadways is provided in Table D.1.

Table D.1
Highway and Road Inventory

Road name	*Minor Arterial*	*Collector*	*Local*	*Pavement width (feet)*	*Length (miles)*	*Comments*
Rte 4	√			40-45	1.32	
Rte 236: except between Berwick Rd, and Portland Street	√			32	3.96	
Rte 236: Berwick Rd. to Portland St.		√		20-40	0.46	
Rte 101		√		20-22	0.82	
Rte 91		√		20	2.04	
Main St: Berwick Rd. to ME/NH line		√		30-36	0.36	fka Salmon St.
Academy St.			√	18-24	1.12	Used as a downtown bypass
Agamenticus Rd.			√	22-30	1.50	Functions as collector road
Alder Dr.			√	24	.673	Used as a downtown bypass
Beaver Dam Rd.			√	24	0.74	
Belle Marsh Rd.			√	18-20	2.27	Steep grades
Bennett Lot Rd.			√	17-20	2.04	Gravel portion

Road name	*Minor Arterial*	*Collector*	*Local*	*Pavement width (feet)*	*Length (miles)*	*Comments*
Birch Dr.			√	14+	0.10	
Boyd's Corner Rd.			√	18-20	2.41	
Black Swan Dr.			√	24 & 16	0.33	
Brattle St.			√	18-20	0.76	
Brookwood Dr.			√	21 & 16	0.38	
Butler St.			√	24	0.21	
Buttonwood Dr.			√	24	0.48	
Clark's Ln.			√	14	0.15	
Chestnut Dr.			√	24	0.28	
Colcord St.			√	18-20	0.09	Used as a downtown bypass
Cottontail Path			√	20	0.06	
Crescent Ct.			√	30-33	0.11	
Crooker Ln.			√	14	0.18	Gravel
Dawson St.			√	16-20	0.24	
Dogwood Dr.			√	24	0.35	
Drury Ln.			√	15-16	0.05	
Earle's Rd.			√	14-18	0.64	
Emery's Bridge Rd.			√	18-20	5.80	Functions as collector
Elizabeth Dr.			√	24	0.24	
Farmgate Rd.			√	24	0.1	
Fife's Ln.			√	18	0.82	Poor sight distance at Old Fields Rd
Finson Rd.			√	15-17	0.46	
Flynn's Ln.			√	15-16	0.51	
Front St.			√	18-20	0.16	
Front St. Ext.			√	16	0.22	Gravel
Garland St.			√	10-12	0.04	
Goodwin Place			√	22	0.04	
Goodwin St.			√	22	0.21	Used as a downtown bypass
Grant St.			√	15-16	0.10	
Great Hill Rd.			√	20	0.64	
Great Works Dr.			√	30	0.15	
Hickory Ln.			√	24	0.36	
High Knoll Dr.			√	24	0.45	
High St.			√	18-20	0.15	
Highland Ave.			√	18	0.28	Used as a downtown bypass
Hill Dr.			√	16-18	0.15	
Hooper Sands Rd.			√	18-20	1.73	
Jewett Ave.			√	15-19	0.14	Used as a downtown bypass

Road name	*Minor Arterial*	*Collector*	*Local*	*Pavement width (feet)*	*Length (miles)*	*Comments*
Junction Rd.			√	18-20	1.00	
Knight's Pond Rd.			√	30	2.75	
Knight's Pond Rd.			√	18-20	.72	From Hooper Sands Rd. to Rt. 4 (formerly known as Steve Harvey Rd. or Harvey Cutts Rd.)
Liberty St.			√	18	0.46	Used as a downtown bypass
Linscott Rd.			√	16-18	0.16	
Locust Ln.			√	26	0.48	
Lord's Ln.			√	18	0.49	
Middle St.			√	16	0.08	
Millstream Ln.			√		0.21	
Monument Square (intersection link)			√			
Mountain Rd.			√	18-20	1.22	Gravel portion, steep grades, seasonal
Neally St.			√	20	0.11	
Norton St.			√	24	0.32	Used as a downtown bypass
Oak St.			√	24	0.32	
Ogunquit Rd.			√	18-20	2.27	
Old County Rd.			√	18	0.63	Poor sight distance
Old Emery's Bridge Rd.			√	16	0.28	
Oldfields Rd.			√	18-20	2.70	
Old Mill Rd.			√	20	0.46	Problem intersection w/Rte 236
Old South Rd.			√	17-18	0.97	
Parent St.			√	20	0.13	
Park St.			√	18-19	0.08	
Paul St.			√	18	0.19	Steep grade at Highland Ave.
Pine St.			√	17-20	0.34	
Pleasant St.			√	18	0.17	
Pond Rd.			√	19-20	1.59	
Quamphegan Rd.			√	20	0.18	
Quarry Dr.			√	24	0.70	
Railroad Ave.			√	18-20	0.25	
Rodier Rd.			√	18-20	1.05	
Roe Fields Dr.			√	24	0.12	
Ross St.			√	18	0.14	
Scott's Court			√	16 & 30	0.06	
Sewall Rd.			√	16-18	0.22	

Road name	*Minor Arterial*	*Collector*	*Local*	*Pavement width (feet)*	*Length (miles)*	*Comments*
Southgate Rd.			√	18	0.065	
Spillane's Hill			√	14-16	0.11	
Spring St.			√	15-16	0.13	
Springtree Ln.			√	24	0.46	
Stacy Ln.			√	20	0.13	
Stevens St.			√	12-14	0.10	
Tamarack Dr.			√	24	0.61	
Thurrell Rd.			√	18-20	1.72	
Tibbetts St.			√	16-18	0.14	Problem intersection w/Berwick Rd
Tufts Rd.			√	17	0.21	
Union St.			√	18	0.19	Steep grades, Used as a downtown bypass
Vaughan's Ln.			√	14	0.35	
Vine St.			√	18-19	0.97	Steep grades, sight distance problems
Wadleigh Dr.			√	18	0.15	Steep grade
Wadleigh Ln.			√	18	0.40	
Waterside Ln.			√	16-18	0.55	
Webster St.			√	16	0.05	
Wild Rose Ln.			√	18	0.38	
William Rd.			√	20 & 16	0.21	
Willow Dr.			√	24	0.77	
Winding Brooke Dr.			√	18	0.34	
Witchtrot Rd.			√	18-22	2.69	
Young St.			√	22	0.30	

5. Vehicle Movement

Understanding the usage patterns and capacity of South Berwick's roads is important in identifying potential traffic congestion problems and hazards and when planning for future growth in Town. For example, a major subdivision may not be appropriate near a hazardous intersection. Similarly, stricter standards for access management in commercial development may be needed in areas with traffic congestion.

a. Population Growth and Commute Trends

Nearly half of Maine's population growth over the last decade occurred in York County, placing a tremendous burden on the region's transportation network. Not only are there more people using the roads, but they are driving more miles. In the last decade, York

County experienced a 13.5 percent increase in population,[1] while the total number of vehicle miles traveled (VMT) increased by just over 20 percent.[2]

Changes in commuting patterns have helped put a record number of cars on Town roads. U.S. Census figures show that between the years 1990 and 2000 the number of South Berwick residents who reported carpooling to work dropped dramatically. On the other hand, during the same time-span there was a small but significant increase in the number of people who reported working at home. This suggests that while the overall trend is toward greater inefficiencies in vehicle usage, local economic development has the potential to mitigate some of the increases in traffic growth resulting from increases in commuting times and distances. Table D.2 compares the past decade's residential growth and increased commute times experienced in South Berwick to those of the surrounding communities and York County as a whole.

Table D.2
Change in Population and Commute Time, 1990-2000

	1990		*2000*		*Change 1990-2000*	
	Population	***Commute Time (minutes)***	***Population***	***Commute Time (minutes)***	***Population Change***	***Commute Time Increase***
South Berwick	**5,877**	**21.8**	**6,671**	**26.8**	**794**	**5**
Berwick	5,995	21.5	6,353	26.1	358	4.6
Eliot	5,293	18.4	5.954	23.3	661	4.9
North Berwick	3,850	27.7	4,293	821.	443	0.4
Ogunquit	976	20.6	1,226	29.3	250	8.7
Wells	7,778	21.7	9,400	26.2	1,622	4.5
York	9,818	21.2	12,854	27.1	3,036	5.9
York Cty.	164,587	21.8	186,742	25.8	22,155	4

Source: U.S. Census Transportation Planning Package (CTPP)

The average commute time of a South Berwick resident in 1990 was 21.8 minutes, the same as the County's average. By the year 2000, however, the average commute time had increased to 26.8 minutes, one minute longer than the County average.

In 1996, over 516 South Berwick households responded to a transportation survey conducted by SMRPC on behalf of the Kittery Area Comprehensive Transportation Study (KACTS), the region's metropolitan planning organization. One question in the survey asked about place of work for employed household members. Table D.3 displays the survey results for that question.

[1] U.S. Census 2000
[2] Maine Dept. of Transportation

The U.S. Census Bureau also collects data on workplace location; this data from the 1990 and 2000 Census is shown in Table D.4.

The information in Tables D.3 and D.4 vary significantly, likely due to differences in survey methodologies. As such, they should not be used in direct comparison with each other. Census data suggests that 47 percent of South Berwick residents stay within York County for employment, while the SMRPC survey found only 41 percent of respondents reported working in the County.

Table D.3
Place of Work for South Berwick Household Members

Place of Work	# of Employed Residents	As a % of All Employed Residents
In York County, Maine	298	41%
Eliot	32	4%
Kittery	92	13%
Sanford	17	2%
South Berwick	111	15%
York	46	6%
Outside Maine	428	59%
Dover	72	10%
Newington	25	3%
Portsmouth	129	18%
Rochester	26	4%
Somersworth	21	3%
Elsewhere*	155	21%
Total	726	100%

Source: SMRPC Transportation Survey (June 1996)
**For comparison purposes, surveyors categorized all "Elsewhere" answers as being outside of Maine.*

Table D.4
Place of Work for South Berwick Residents Age 16 Years and Older

	1990		*2000*	
Place of Work	***# of Employed Residents***	***As a % of All Employed Residents***	***# of Employed Residents***	***As a % of All Employed Residents***
In Maine	1,489	50%	1,716	49%
In York County	1,468	49%	1,662	47%
Outside York County.	21	1%	54	2%
Outside Maine	1,506	50%	1,792	51%
Total Workers	**2,995**	**100%**	**3,508**	**100%**

Source: U.S. Census 1990 & 2000

The U.S. Census also collects information on commute mode of travel. Table D.5 identifies the modes of transportation utilized by employed South Berwick residents for commute trips in both 1990 and 2000.

Table D.5
Mode of Transportation to Work for South Berwick Residents Age 16 Years and Older

Mode of Travel	1990	2000	% Change 1990-2000
Drove Alone	82.9%	87.8%	5.91%
Carpooled	12.3%	4.3%	-65.%
Public Transportation (including taxi)	.7%	1.2%	71.43%
Bicycled or walked	2.1%	2.8%	33.33%
Motorcycle or other means	0	.7%	n/a
Worked at home	2%	3.1%	55%

Source: U.S. Census Transportation Planning Package (CTPP)

The trend over the past decade for South Berwick residents has been a shift in commuting trips from carpools to other modes of travel, primarily to single-occupant vehicles. This trend is consistent with both national and statewide trends. However, it is important to note that carpooling is still the second most popular mode of transportation to work.

The percentage of residents using public transportation for their journey to work increased by one half of a percentage point between 1990 and 2000, a small but notable increase. Similarly, the percentage of persons who bicycled or walked to work increased slightly.[2]

Another notable trend was the increase in percentage of residents who reported working at home, which increased from 2 percent in 1990 to 3.1 percent in 2000. Advances in communications technology and greater employer allowances for employee telecommuting have the potential to help offset some of the projected travel demand in the region.

b. Traffic Volumes

Roadways in South Berwick have experienced increases in traffic volumes over the past several decades. In an effort to monitor changes in traffic volumes, MDOT and SMRPC conduct traffic counts at locations throughout the region. Historical traffic counts for locations in South Berwick are shown in Table D.6 below. The volumes shown are Annualized Average Daily Traffic, or AADT, which have been adjusted to eliminate seasonal fluctuations.

[2] The combined grouping of bicycle and walking trips is somewhat misleading however, in that detailed data shows a decrease in bicycling trips and in increase in walking trips over the time period 1990-2000.

Table D.6
Historical Traffic Volumes (Average Annualized Daily Traffic or AADT)

Location	1990 Comp Plan	*1995*	*2000*	*2001*
Rte 4 (Main St.) at the NH State Line	7,610 (1987)	8,420	9,440	11,090
Rte 4 NE of Rte 236 (Main St.)	n/a	14,870	18,990	
Rte 91 SE of Witchtrot Rd.	2,710 (1987)	3,080		
Rte 101 at the NH state line	2,392 (1980)	3,950	4,510	
Rte 236 SE of Fife's Ln.		8,890,	12,780	
Rte 236 NW of Rte 91	10,330 (1987)	11,160	15,100	15,310
Rte 236 NW of Rte 4 (Portland St.)	6,065 (1980)	8,140	11,010	
Agamenticus Rd. E of Monument Sq.		2,960	3.430	
Agamenticus Rd. SW of Emery's Bridge Rd.		1,630	2,520	
Belle Marsh Rd. SE of Emery's Bridge Rd.	124 (1981)	210	520	
Brattle St. S of Rte 236	163 (1981)	860		
Brattle St. S of Vaughan's Ln.	163 (1981)	310	500	
Flynn's Ln. W of Brattle St.	166 (1981)	220		
Goodwin St. NW of Rte 4 (Portland St.)		630	960	
Highland Ave. SE of Rte 4 (Portland St.)		540	860	
Lower Main St. at the NH state line		1,940	1,910	
Witchtrot Rd. NE of Rte 91		1,020	1,330	

The 1999 *Route 236 Land Use and Transportation Study* identified Route 236 between its intersection with Route 91 in South Berwick and the Berwick/South Berwick town line as one of two sections whose capacity would be most affected by anticipated residential growth within the study area. Additionally, the intersection of Route 236/Quarry Drive was noted as likely needing signal installation or operational improvements in the future.

c. Heavy Vehicles

Maine state law restricts the weight of heavy vehicles traveling the State highway system to 100,000 pounds or less. Weight limits on interstate highways are set at 80,000 lbs. However, the State of Maine received an exemption from Congress allowing the application of State law (100,000 pounds weight limit) on the Maine Turnpike and on I-95 through Kittery and York. In New Hampshire, trucks traveling on State roads and the interstate system are restricted to 80,000 pounds.

Heavier trucks may be permitted in Maine if they cannot be broken down into smaller loads, such as for pieces of heavy equipment. Those loads need to obtain a special permit which is valid for a specific route and for a limited period of time. Oversized or "wide" loads also have to obtain special permits. Under the New England Transportation Consortium Overlimit Permit Program, in which Maine participates, oversize trucks may travel on designated routes—most often off the Turnpike – provided they do not exceed 90 feet in length, 13 feet 6 inches in height, 14 feet wide (with an additional 6 inch provision for modular or mobile homes), and 108,000 pounds for 5-axle and 120,000 pounds for 6-or-more axle tractor-semitrailer combination vehicles. In addition, vehicles may exceed these limits but must operate under separate permits in each state. The preferred routes for an oversized load being hauled by truck

in southern Maine are typically Routes 4, 236 and 202, which are designated truck routes.

The 1999 *Weigh Station Diversion Study* indicated an increase in truck traffic on alternate routes, including Route 236 in South Berwick, when the Maine Turnpike and Route 1 weigh stations were open. Additionally, the study found the following:

- Route 236 in South Berwick experienced *more (total for the day)* truck traffic on Thursday (weigh stations open) than on Wednesday (weigh stations closed).
- During the hours of weigh station operation, all locations off the Maine Turnpike experienced increases in truck traffic, 15 percent overall (353 vehicles). On the Turnpike, the number of vehicles decreased during the hours of operation by -9.3 percent overall (785 vehicles).
- The highest increase *during the hours of operation* occurred on State Route 236 (23.6 percent).

The results of this study were discussed in the 1999 report of The Commission to Review Traffic Congestion Including Truck Traffic Along the Route 1 York Corridor and the Route 236 Corridor. That document states "State Police staffing is insufficient to properly operate weigh stations, patrol Route 1 and 236 and manage oversize load traffic," and "Heavy truck traffic and oversize loads are causing serious traffic congestion problems and premature road deterioration along Route 236, particularly in South Berwick." Similar issues exist for Route 4.

d. Highway Safety

The MDOT compiles data from files for reported accidents and uses this information to evaluate the accident rate of a road segment or specific intersection through a Critical Rate Factor (CRF). A CRF greater than 1.0 indicates an accident rate greater than an average comparable road segment or intersection elsewhere in Maine.

MDOT has identified several intersections and highway segments in South Berwick as High Crash Locations (HCLs). HCLs are intersections or road segments where 8 or more crashes occur in a three-year period and have a CRF greater than 1.0. Table D.7 illustrates the locations of the HCLs that have been identified in South Berwick over the last 6 three-year periods.

Table D.7
South Berwick High Crash Locations, 1994-2001

	1994-1996	1995-1997	1996-1998	1997-1999	1998-2000	1999-2001
Intersections						
Rte 4 (Main St.)/Rte 236 (Portland St.)	10	16	17	16	15	13
Rte 4/Agamenticus Rd.	n/a	n/a	8	n/a	n/a	n/a
Rte 236/Rte 4/Main St.	n/a	n/a	12	10	9	n/a
Rte 236/Quarry Dr.	n/a	n/a	8	8	n/a	n/a
Rte 236/Rte 91	9	10	14	17	20	21
Rte 236/Vine St.	n/a	n/a	n/a	n/a	11	10
Roadway segments						
Main St.: Academy St. to Paul St.	13	14	13	11	n/a	n/a
Rte 236: 1/3 mi. section S of Main St.	n/a	n/a	n/a	13	15	16
Rte 236: Eliot TL to Shorey Ln.	n/a	n/a	n/a	n/a	12	14

Source: MDOT

The Route 236/Route 91 intersection has been one of the longest-standing identified locations, with increasing numbers of crashes in each consecutive HCL period. From 1995 to 2000, the volume of vehicle traffic traveling through this intersection increased by 35 percent while the number of accidents more than doubled. The Main Street/Portland Street intersection has also been identified for at least six consecutive HCL periods. This location has experienced a 58 percent increase in traffic volume, while the number of crashes has been fairly consistent from year to year.

Most accidents nationwide are caused by speed, alcohol, or driver inattention. The road sections listed in Table D.7 should be examined for possible improvements to reduce the relatively high accident rates.

Limited Federal, State and local funding for roadway projects means limited ability in addressing the above safety problems. Therefore, it is important to identify priorities for discussion with the MDOT. It is also important to consider road safety conditions when reviewing various land development proposals. A development could aggravate traffic problems if driveways and/or access roads are poorly sited.

e. Downtown Traffic and Parking

Many public forums in the community in recent years have focused on traffic problems in the downtown area, specifically truck traffic, student transportation and the potential need for a bypass route. Although the previously noted studies have focused on the Route 236 corridor, the findings have an obvious impact on traffic in downtown South Berwick. In fact, The Commission to Review Traffic Congestion Including Truck Traffic Along the Route 1 York Corridor and the Route 236 Corridor noted that Route 236

through South Berwick "needs to be widened or realigned beyond the limits of its current public easement."

According to the traffic count data provided above, almost 19,000 vehicles travel through downtown South Berwick every day, the highest volume of traffic experienced along any state route in Town. Volumes during the a.m. peak period (6:45 a.m. – 7:45 a.m.) are over 1,200 vehicles, and increase to almost 1,600 vehicles per hour during the p.m. peak period (4:00 p.m. – 6:00 p.m.). Volumes drop to less than 400 vehicles per hour between 7:00 p.m. and 6:00 a.m.

There are four public parking lots in South Berwick. Approximately 40 spaces are provided behind Town Hall, 20 next to the Post Office on Main St., 40 on Norton St. and another 10 on Paul St. On-street parking is also available. There is no charge for parking at any of these locations.

As mentioned in Section 2 of this chapter, parking was identified as a serious challenge facing South Berwick in the next five years. The public perception is that more parking is needed downtown to support the continued growth of the downtown as South Berwick's community center.

6. Planning Studies

Route 236 is a heavily traveled highway, especially during peak commuting periods. Three studies were conducted in 1999 regarding Route 236. The first to be published was the *Route 236 Land Use and Transportation Study* (March 1999), produced by SMRPC for KACTS. That study analyzed residential growth trends, projections and associated effects of vehicle movements along Route 236. It identified the section of Route 236 between its intersection with Route 91 in South Berwick and the Berwick/South Berwick town line as one of two sections where capacity would be most affected by anticipated residential growth within the study area.

In November 1999 a *Weigh Station Diversion Study* was also published by SMRPC for KACTS. It monitored traffic at five locations (including Route 236) off the Maine Turnpike for two days: a Wednesday when weigh stations were closed, and a Thursday when weigh stations on Rte 1 and the Turnpike were open (5:00 a.m. – 11:00 a.m. and 12:00 p.m. – 2:00 p.m.).

The study noted an increase in truck traffic on alternate routes—including Route 236 in South Berwick—when the Maine Turnpike and Route 1 weigh stations were open. The highest increase, nearly 24 percent, occurred on Route 236.

In December 1999, a third report was published by the Commission to Review Traffic Congestion Including Truck Traffic Along the Route 1 York Corridor and the Route 236 Corridor. The results of the *Weigh Station Diversion Study* were discussed in the Commission's report. The document states that "Heavy truck traffic and oversize loads are causing serious traffic congestion problems and premature road deterioration along Route 236, particularly in South Berwick." The report also identified the need for greater

awareness and incentives to promote carpooling as a mitigation measure for increased traffic congestion.

7. Access Management and Traffic Calming

a. Access Management

An approach that has been applied successfully nationwide in dealing with traffic congestion is access management. The idea is essentially that greater control be exercised in the spacing, location and design of driveways, medians and median openings, intersections and traffic signals. Some general access management techniques involve:

- Physically restricting left turns
- Restricting curb cuts and direct access driveways
- Encouraging the use of shared driveways
- Separating obvious conflict areas

The primary benefits of implementing access management strategies are a reduction in traffic accidents and improvements in traffic flow along arterial roadways. Access management is not without costs, and the most frequently cited is the negative impact on businesses that can occur with restricted access.

One of the more prominent issues discussed in all three Route 236 studies was highway access via "curb cuts" and the associated effects on the highway's ability to move traffic effectively and safely. The *Route 236 Land Use and Transportation Study* noted that curb cuts or access points along Route 236 would likely worsen the roadway's Level of Service (level of operation), but access points were not specifically analyzed as part of that study.

The study predicted that land immediately adjacent to the highway would be increasingly developed by businesses that primarily rely on capturing pass-by traffic, such as "fast food" vendors, coffee shops and retail establishments. These types of businesses generate large volumes of traffic, with exits and entrances onto the highway that create conflicts with the flow of traffic on the roadway. As further testimony to this issue, *The Commission to Review Traffic Congestion Including Truck Traffic Along the Route 1 York Corridor and the Route 236 Corridor* cited the increasing number of curb cuts as an impediment to an easy and safe commute. The report also recommended a center turn lane from Kittery to the Eliot/South Berwick town line.

Several years ago state legislation was passed to address concerns over arterial capacity, poor drainage and the high number of driveway related crashes. The MDOT subsequently developed access management rules which went into effect in early 2002. The rules regulate sight distance, corner clearance, driveway spacing and width, setbacks, parking, drainage and mitigation requirements. Under these rules, in order to obtain a permit from MDOT any new or changed driveway or entrance on state and

state-aid highways located outside urban compact areas must meet specifications described in the rules.

The rules are organized into a four-tier system with regulation of driveways and entrances increasing for roads with higher mobility importance and poorer safety records. The following designations apply to South Berwick's highway network:

1. Basic Safety Standards apply to all State and State Aid roadways. (Routes 4, 91, 101 and 236 and Lower Main Street)
2. Major Collector and Arterial Standards provide more regulation for *entrances* onto major collector and arterial roadways. (Routes 4, 91, 101 and 236 and Lower Main Street)
3. Mobility corridors connect service centers and/or urban compact areas and carry at least 5,000 vehicles/day along at least 50% of the corridor's length. (Route 4 north of downtown and Route 236)
4. Retrograde arterials are mobility corridors where the number of crashes related to a driveway or entrance exceeds the statewide average for arterials with the same posted speed. (Route 236 south of Fifes Lane)

b. Traffic Calming

Traffic calming offers another approach for dealing with traffic congestion. The primary approach to traffic calming involves reducing traffic speeds by altering the design, configuration or appearance of the street. Small-scale roundabouts, sidewalk bump-outs, street landscaping, road lane narrowing and chicanes are all examples of traffic calming techniques. Typically, traffic calming is most appropriate on lower-volume collector or local roadways, rather than on roadways such as principal arterials, whose purpose is to facilitate through traffic flow.

Controlling vehicle speeds to more appropriate levels can reduce noise and air pollution, lower the number and severity of traffic accidents, as well as increase the capacity of the roadway to handle more vehicles.

This type of traffic calming has two general approaches: active and passive. Active techniques, such as a roundabout rather than a standard 4-way intersection, force drivers to change their behavior and thereby follow speed limits. Passive controls, such as speed limit or other traffic signs, do not physically require a change in behavior, but instead rely on a driver's decision to comply with local and state laws.

Another approach is to change how the street is perceived by the driver. By replacing wide, open streets with more narrow travel lanes, broken sight lines, and generally a more "closed in" feeling, drivers will have a tendency to reduce speed.

Access for emergency vehicles is often a concern when a community is considering implementing traffic calming measures. However, many communities have adopted traffic calming without compromising public safety.

8. Student Transportation

A number of schools are located in South Berwick and all are located in heavily traveled areas. Four schools are located in downtown South Berwick.

The *Draft York County School Transportation Policies Survey and Report*, developed by the Kids & Transportation Program of York County in 2001, indicated that, depending on the season and weather, approximately 17 to 21 percent of students in York County are regularly driven to school. Another 3 percent drive themselves while 2 to 4 percent walk or bike, and the remaining 73 to 75 percent take the bus.

Information provided by MSAD 35 for the 2003-2004 school year shows that a large percentage of students who are offered bus service to school do not utilize the service. Detailed information on school bus utilization is provided in Table D.8.

Table D.8
Public School Bus Utilization

	Central School	Marshwood Middle School	Marshwood High School
Total # of students	501	388	830
% of students offered bus service to school	75%	100%	100%
# of students who ride the bus to school	300	229	305
% of students offered bus service who ride the bus to school	80%	59%	37%

Source: MSAD 35

Eight bus routes serve Central School. The longest bus ride is 40 minutes and the shortest is 25 minutes.

9. Non-Motorized Transportation

a. Bicycle Travel

Bicycling is another means of travel as well as a popular recreational activity. The popularity of cycling for both transportation and recreation has increased over the past ten years, making the potential usage higher than previously experienced.

Any segment of roadway having a paved shoulder of at least 4 feet in width, or a travel lane of 14 feet or more in width, is generally considered an appropriate design for bicycle travel. The additional width provides adequate space for a motorized vehicle to overtake a cyclist without having to cross the center line or pass closer than 3 feet to the cyclist. Local roadways, with the exception of those with higher than normal traffic volumes, typically don't require additional pavement width.

Route 236 and Route 4 from downtown to Agamenticus Rd. both have 4 feet or greater paved shoulders. The MDOT's policy calls for any highway improvement, reconstruction, or pavement preservation project on Route 4, Route 91, Route 101, Route 236 or Lower Main Street shall include paved shoulders because the Summer Average Daily Traffic exceeds 4,000 vehicles. In 2000 the Regional Transportation Advisory Committee (RTAC) Region 6 compiled a list of regional shoulder improvement priorities. The report identifies Routes 91 and 101 in South Berwick as having a "high priority" for shoulder improvements.

Conditions on Routes 236 and 4 render these roads as major impediments to the free flow of bicycle and pedestrian traffic in Town. High speeds, traffic volumes and the number of accidents on Route 236 make it difficult and/or unsafe to cross the roadway at virtually all points south of the village center, effectively dividing the Town in half. High traffic volume and speeds make Route 4, especially the Portland Street section, unsafe for unsupervised children on foot or on bicycle.

The Eastern Trail, a designated and signed bike route from Kittery to Portland, passes through South Berwick. The overall plan is to construct a separate trail over time, and abandon the on-road segments unless the Town wants to retain them as feeder routes into the Eastern Trail. MDOT's Office of Passenger Transportation funded the paving of shoulders on the Eastern Trail portions of Agamenticus Road and Knight's Pond Road. Those shoulders are now designated as bicycle and pedestrian lanes.

In addition to providing safe facilities, it is necessary to educate adult and child cyclists and motorists on proper rules of the road, and safe operation of vehicles, whether they are motorized or non-motorized. National studies found that 80 percent of accidents involving cyclists do not involve a motor vehicle, but rather a fall or a collision with another cyclist or some object.[3]

b. Pedestrian Travel

Walking, while not used extensively as a mode of travel in Town, is nonetheless part of the transportation mix and should be included when planning improvements to the Town's transportation system. In addition to supporting walking as a means of travel for short, local school or work trips, a pedestrian-friendly downtown will enhance the town center.

[3] *Bicycle Transportation: A Handbook for Cycling Transportation Engineers*, John Forester, M.S., P.E. (1994)

A half-mile walk is generally considered walking distance, although many people feel comfortable walking one mile or more.

The Town should consider expanding and improving, as necessary, its existing sidewalk system to encourage and accommodate pedestrians safely. High priority areas for improvements to the existing sidewalk network include the downtown area and nearby residential areas.

In addition, the Town should require the construction of sidewalks in new residential and commercial developments.

10. Public Transportation Facilities and Services

This section presents a summary of existing public transportation service available to South Berwick residents. For the purpose of this document, public transportation is defined as any transportation service available to the general public. When available, public transportation plays an important role in addressing the traffic issues that a community may be facing. It represents a more efficient use of the existing road network by carrying passengers that otherwise might be driving their own vehicles. A successful public transportation system can remove a significant number of vehicles from the roadway and offer social benefits by providing a reliable means of travel for those who are unable or otherwise choose not to drive themselves.

There is currently no fixed-route public transportation service for the general public in South Berwick. York County Community Action Corporation provides demand-responsive public transportation service for the elderly, disabled and low-income populations. Service is provided from South Berwick on Thursdays for medical, shopping and miscellaneous trips to the Dover/Somersworth area.

The Dover Transportation Center in Dover, New Hampshire is the nearest hub of transportation services for South Berwick residents. The station is served by local transit providers (COAST and the University of NH's Wildcat Transit), intercity bus service (C&J Trailways) and passenger rail (Amtrak Downeaster).

As South Berwick's population grows so does the potential for viable fixed-route public transportation service. The town could also explore the promotion of van pools, carpooling and other ride-sharing measures to reduce the amount of single-occupant vehicle commuting to and from town. The Town Hall and Norton Street public parking lots are designated park & ride lots, but only the Town Hall lot is signed as such.

11. Rail Service

Guilford Transportation Industries owns the Boston & Maine Branch which crosses South Berwick in a southwesterly-northeasterly direction along the Town's northwest border. It serves as a main trunk line for the northeast and carries both freight and passenger trains.

Despite a decline in freight volumes over the years, railroads are principal carriers of paper, pulp, lumber and wood. State policy makers have generally maintained that railroads are important to the State's economy and are looking for ways to maintain their viability.

Regularly scheduled Amtrak passenger rail service operates over the Boston & Maine branch between Boston and Portland, but there are currently no stops in South Berwick. The service is most accessible from the Dover, NH Transportation Center.

12. Local Transportation Issues

Primary local transportation issues revolve around continued growth of traffic volumes, the need for access management, traffic congestion and truck traffic through downtown, unsafe intersections, roadway segments, lack of transportation alternatives to the automobile, and bicycle and pedestrian safety. Specifically, the following have been identified as major local transportation issues:

a. Functional Classification

- *Federal functional classification*: With increased residential growth Agamenticus, Emery's Bridge and Witchtrot Roads function as collector roads rather than local roadways. As growth continues in the rural areas of Town, more roadways will be similarly affected. Different design standards for selected roads in designated growth and rural areas can help to direct growth in the locations identified in this Comprehensive Plan. In addition, Alder Drive and Liberty, Colcord and Norton Streets are all serving as unofficial bypass roads.

b. Vehicle Movement

- *Population growth and commute trends*: The population in southern Maine is growing, and people are driving more. Commute times are longer than they were ten years ago, and Town residents are carpooling less due in part to increasing demands on time, varying work schedules and the decrease in employment at large common places of work, especially the Portsmouth Naval Shipyard. Measures that may ease the burden on the transportation system include: encouraging more local employment opportunities for South Berwick residents, improving the visibility and accessibility of ridesharing opportunities, increased utilization of MSAD 35 school buses, encouraging travel by bicycle and on foot, and exploring public transportation options for Town residents.

- *Traffic volumes*: Main Street in downtown and Route 236 have experienced the most significant increases in traffic volume, especially between 1995 and 2000. As these roadways provide both regional and local mobility, balancing this mobility with safety of the traveling public becomes the challenge for the future.

- *Heavy vehides*: South Berwick residents have consistently complained about the high volume of heavy vehicles that drive through the village center and on Routes 236

and 4. This traffic comes from several factors, including weight limits, weigh station delays and tolls on the Maine Turnpike. Many of these vehicles could reach their destination by staying on the Turnpike. A concerted effort is needed to urge agencies that regulate and permit the movement of heavy vehicles to make it easier for heavy vehicles to travel on I-95.

- *Highway safety*: Seven intersections and three roadway segments in South Berwick experience safety issues. Many of these locations have been longstanding issues and at least one intersection—Route 236/Route 4—has consistently grown worse with increasing traffic volumes.

- *Downtown traffic*: A number of important factors regarding traffic through downtown South Berwick remain to be monitored. One traffic count has indicated that weekday volumes are highest during the PM peak period (4:00 p.m. – 6:00 p.m.) and relatively even volumes throughout the rest of the day. The impact of the four schools located in the downtown area also needs to be quantified.

- *Downtown parking*: There is a perception that there is not enough parking in the downtown area. There is also a general consensus in the community that parking is essential for the success of downtown businesses.

- *Access management*: New or changed driveways and entrances onto Routes 4, 91, 101 and 236 and Lower Main Street must be permitted by the Maine Dept. of Transportation as regulated in the 2002 Access Management Rules. The strictest design standards apply to Route 236 south of Fife's Lane to the Eliot town line. Commercial, industrial or high-density residential growth in this area will likely be required to have alternative means of access, such as parallel service roads or interconnected side streets.

c. Public and Student Transportation

- *Public transportation*: Transit options within South Berwick are extremely limited although a major transit hub is located in neighboring Dover, New Hampshire.

- *Student transportation*: A number of schools are located in South Berwick and all are located in heavily traveled areas. Four schools are located in downtown South Berwick. Since students arrive at school within a narrow window of time, the dropping off and picking up of students by bus and individual vehicles creates an intense, immediate effect on traffic movement on nearby roads.

d. Bicycle and Pedestrian Travel

- *Bicycle travel and safety*: Bicycle safety is a primary concern of both experienced adult cyclists and the parents of young cyclists. Routes 4 and 236 are major impediments to bicycle and pedestrian flow. The Eastern Trail bike route has enhanced pedestrian and bicycle accessibility through and within South Berwick. However, it will likely be many years before the project is completely built. In the

meantime, improved pavement conditions, improved motorist and cyclist education, and the enforcement of speeding and passing laws can strengthen bicycle safety.

- *Pedestrian travel and safety*: Walkways to access downtown schools, businesses and services, the Teen Center and recreational fields are limited to the village center and Agamenticus Estates. No walkways connect to some important recreational sites such as Vaughan Woods Memorial State Park. Safer connections between designated residential growth areas and these community facilities are needed. Further, it is unsafe to cross Routes 4 and 236 at many points.

13. Regional Transportation Issues

Many of South Berwick's local transportation issues, specifically increasing traffic volumes, downtown traffic congestion and heavy vehicles are also regional in nature, and thus dependent upon a solution outside of the Town borders and jurisdiction. As such, it is critical the Town participate in the regional transportation planning process designated by the federal government and the State of Maine. Under the Federal Transportation Efficiency Act of 2001 (TEA-21) legislation, state-designated "metropolitan planning organizations" (or MPOs) have a greater role and responsibility in programming highway and transit projects. The legislation charges MPOs with the responsibility of developing comprehensive, project-specific and financially realistic transportation plans with 20 year horizons. These plans serve as the vehicle from which virtually all federally funded transportation projects are selected and implemented.

South Berwick is included in the study area of KACTS. The MPO is staffed by SMRPC. Participation in the MPO is meaningful to the Town in several ways. First, the MPO is responsible for developing a regional transportation plan and a prioritized list of capital improvements for transportation. South Berwick has the opportunity to participate in this planning process through town appointed representation to the MPO and its committees.

TEA-21 transportation planning requirements call for the development of a regional project-specific long-range transportation plan, covering a twenty year horizon. The MPO plan draws heavily on the transportation components of local comprehensive plans and will identify conceptual transportation improvements needed in the region. From the regional long range plan, the MPO develops a Transportation Improvement Program (TIP) on an ongoing two-year cycle. The TIP is developed as a prioritized list of projects for implementation.

Given the importance of both the MPO Plan and TIP in defining the future transportation system in the region, the Town should remain actively involved in the MPO. The Town should work with the MPO during each TIP development cycle to develop and submit a specific list of needed transportation improvements eligible for federal funding.

E. PUBLIC FACILITIES AND SERVICES

1. Purpose

A thorough understanding of a town's public services is necessary to determine any current constraints to growth and identify any growth-related challenges that the town is likely to face in the future. A plan should also identify likely future capital improvements. Specifically, this section will:

a. identify and describe South Berwick's public facilities and services; and
b. assess the adequacy of these services to handle current and projected demands.

(Town expenditures are discussed in detail in the Fiscal Analysis Chapter. The complete Capital Investment Plan (CIP) is included in the Fiscal Capacity Section.)

2. Inventory of Facilities

a. Water District

The South Berwick Water District (SBWD) provides drinking water to the community of South Berwick and a small portion of Berwick in York County, Maine. The South Berwick Water District was incorporated in 1959. The primary service area includes South Berwick Village and the Hooper Sands area as well as a small area in Berwick in the vicinity of the Blackmore well field and the Route 4 area. Map E.2. shows the service area of the SBWD.

The initial operating property of the District was acquired from the South Berwick Water Company in 1960. The original water system has been modified and upgraded over the years to meet modern water works standards and in response to increasing population growth. These improvements have included development of a new supply, a new storage reservoir and various distribution system improvements.

The demands in the water system have historically been residential with some light commercial water use in the South Berwick Village area. The District currently serves no industrial customers.

Water Supply: The South Berwick system presently has adequate capacity to meet projected demands within the system under current conditions. The SBWD has developed all the cost-effective aquifer sites closest to the water distribution system. However, the population growth pressures in the community and surrounding area will continue to stress the water supply in South Berwick into the future. In anticipation, several potential well sites have been identified for future development which could be incorporated into the water system as growth occurs.

In general, a water system is considered to have adequate supply if it can meet the following system standards:

- The ***safe yield*** of the source of supply should exceed the average-day demand over the projected planning period.
- The ***safe pumping capacity*** of the system, with the largest unit out of service, should be greater than or equal to the maximum day demand.

The ***safe yield*** of the SBWD well supply exceeds the projected average-day demands in the system through 2020 based on the recent expanded supply development at Willow Drive. This well field alone will provide for a sustained yield of over 500 gallons per minute (gpm). On this basis, the safe yield of the South Berwick supply is more than adequate to meet projected demands that may occur.

The ***safe pumping capacity*** is defined as the pumped capacity with the largest pump out of service. In addition, hydraulic capacity of the well system should not exceed an average pumping rate of 16-18 hours per day. This operating scheme allows for a 6 – 8 hour recovery period every 24 hours.

The total pumping capacity of the South Berwick well supply is about 575 gpm. (828,000 gallons per day (gpd) when the largest pumping unit, Willow Drive #2 (Pumping Capacity = 575 gpm) is out of service and all wells are pumped on a 24-hour basis. This analysis assumes that the new Willow Drive well is fully operational at the rated capacity of 575 gpm. However, both the Willow Drive site and the Junction Road site have a redundant well and emergency generators which can allow for a quick implementation of a new mechanical replacement system in an emergency situation. It is therefore more practical to consider this the pumping analysis and rate the safe pumping capacity as 1010 gpm. for the entire South Berwick system.

The safe pumping capacity is summarized in table E.1.

Table E.1
Summary of Well Capacity and Performance Data SBWD

Parameter	Well Construction	Well Depth (feet)	Well Diameter (inches)	Pumping Capacity (gpm)
Agamenticus Wells				
Bedrock Well	Drilled Bedrock	705	6	60
Gravel Well	Gravel – Packed	55	12	35
Vacuum Well field	Vacuum	23 -28	2.5	40
	Total Agamenticus Supply Capacity – 135 gpm			
Blackmore Wells				
Blackmore Well #1	Drilled Bedrock	250	6	60
Blackmore Well #2	Drilled Bedrock	250	6	50
Blackmore Well #3	Drilled Bedrock	254	6	30
	Total Blackmore Supply Capacity – 140 gpm			
Willow Drive Wells				
Willow Drive #1	Drilled Bedrock	235	8	150
Willow Drive #2 (new)	Drilled Bedrock	518	12	575
	Total Willow Drive Supply Capacity – 575 gpm			
Junction Road Well				
Junction Road Well #1	Drilled Bedrock	537	12	150
Junction Road Well #2	Drilled Bedrock	500	6	70
	Total Junction Road Supply Capacity – 150 gpm			
Total Supply Capacity in South Berwick – 1000 gpm (1.44 MGD)				

Source: SBWD

Water quality and treatment: Recent water quality data suggests that the District will meet the requirements of the proposed arsenic, radon and groundwater rules. However, the District should continue to track these regulations through the final rule making and enforcement phases.

Acquisition of land around the wells should continue to avoid having to comply with anticipated enhanced disinfection requirements under the Groundwater Rule. The District should continue its proactive program of land control around all well supplies and seek to purchase all land within the prescribed well head protection areas.

Distribution Storage: The District is projected to have adequate distribution storage volume through 2020 to meet fire suppression needs in the service area, to provide peak flows and to provide for the emergency needs of the District. The Powder House Hill Reservoir provides adequate storage volume to meet peak-hour and fire flow needs.

System Reliability: A new auxiliary generator is recommended for improved system reliability and emergency pumping at Willow Drive. The new generator at Willow Drive

and the generator at Junction Road will provide emergency pumping capabilities of 642,000 GPD. This flow rate will be sufficient to meet projected maximum-day conditions in year 2020. A new generator is proposed at Willow Drive and scheduled for installation in 2007-2008.

Fire Protection: Available fire flows meet or exceed all ISO requirements at specific location in the distribution system as determined using the computer simulation model developed for this study. Hydrant spacing also meets ISO requirements.

Distribution System Improvements: Various distribution system improvements have been identified to replace aging pipe, to improve pipe looping, to reduce peak-hour velocities and to remove restrictions in the distribution system. Similarly, these piping improvements have been scheduled and prioritized to take maximum advantage of the District's annual capital improvement budget. The District's existing debt structure was considered when scheduling all improvements.

Interconnection Opportunities with Surrounding Water Utilities:

The South Berwick Water District is one of the charter members of the Southern Maine Regional Water Council SMRWC). The SMRWC was formed in 2005 as a voluntary organization to P4romote regional cooperation among the water utilities serving this fast growing region. The member utilities include the Portland Water District, the Biddeford-Saco Water Company, Kennebunk-Kennebunkport-Wells Water District, Sanford Water District, York Water District, the Kittery Water District and the South Berwick Water District.

The Council has begun many cost-sharing initiatives such as shared purchasing programs, bulk chemical agreements and mutual cooperation of man-power resources and operations staff, to reduce operating costs for participating members. These initial cooperative steps have resulted in cost savings to the regions water customers.

The member utilities recognize that the southern Maine coastal region is limited in available water supplies and that the supplies are not necessarily located where population growth is occurring or projected to occur. This realization has led the council to consider the long term necessity of one day having to share water resources in order to sustain service through the region.

The Council is advancing engineering aspects required to develop a potential future regional water systems. If proven viable, a regional system is envisioned to occur through interconnections and regional supply balancing with the overall goal of improving service, reliability and cost of water to the region's customer base.

Regulatory Compliance

The South Berwick Water District is a fully regulated water utility in the State of Maine. As such, the SBWD is required to meet the regulatory requirements of the Department of Human Services regarding public health matters and the Maine Public Utilities Commission regarding water rates and other financial and managerial matters. In addition, the District is also required to be in compliance with all regulations administered directly by the U.S. Environmental Protection Agency.

A review of the District's standing indicates that the SBWD is in compliance with all regulatory requirements of these agencies and with other applicable state and federal laws governing water utilities.

Source Water Protection and Well Head Protection

The Town of South Berwick, in conjunction with the Water District, has implemented several planning measures to protect the groundwater resources within the community. These measures include land-use zoning for all property around existing public wells and a restrictive site plan review process for planned development around existing wells. The District has also established land management practices which include timber harvesting or selective cutting as determined by State certified foresters within its source water protection areas.

The District allows controlled public access within these protection areas. This includes public use of land for recreational purposes such as hiking and cross country skiing. To facilitate public access and use within these protection areas, the access roads are to each site are well signed and gated to increase public awareness of the area as a public water supply. Public awareness signs are also posted along all the District's established protection areas. Other security measures have been put in place but can not be revealed for that reason.

Expansion Potential:

Potential expansion areas include, but are not limited to, the Route 236 corridor, the Route 4 corridor, Route 91, Emery's Bridge Road, Brattle and Pine Street areas.

STATISTICS

Miles of pipe 35 miles
Number of fire hydrants 156
Number of Customers 1,350
Population served : 4,000 or 60%
Land owned: 121 acres plus/minus
3 utility vehicles
1 back-hoe

4 full time staff people
elected (5 member) Board of Trustees
1 office building
4 pump stations/well fields
average 25 new customers a year over last 10 years
1 million gallons of storage at an elevation of 297' above sea level
1 treatment facility

The Water District and Town have a mutual aid understanding of sharing equipment and personnel and are now beginning to discuss the potential benefits of further joint and separate equipment purchases that would enhance both entities. The Water District continues to work with SAD # 35 in youth education on water and the "Hike Through History" event. The Water District also assists the Town Planning Board when issues of water protection and quality of are concern.

b. Sewer District

South Berwick has a sewage collection and treatment system consisting of gravity sewers and force mains, five pump stations, and a treatment plant constructed as a primary facility in 1965 and upgraded to a tertiary plant in 1995. The collection system runs throughout the urban portion of the community, and services the regional high school two miles south of the town center on Route 236 via a pump station and force main. The system currently serves approximately 50 percent of the population. Map E.1. shows the service area of the South Berwick Sewer District.

The system is owned, operated and maintained by the South Berwick Sewer District, a quasi-municipal authority formed under the provisions of Chapter 226 of the Private and Special Laws of 1964. A five-member Board of Trustees, elected by District members, manages the District.

The District has four full-time employees at the treatment plant, a 40-hour per week office manager, and a professional engineer who acts as a part-time administrative assistant. The District maintains an office at the Town Hall.

Currently, there are approximately 1550 residential and commercial billed units. The District's annual budget was over $1.08 million for 2007 with long-term debt of $2.36 million outstanding as the result of the treatment plant upgrade. The sewer rate is composed of a debt service rate (which is set annually by the trustees and used to pay annual debt and interest payments) and a variable service rate (which is also set annually and is based on water use). The debt service rate is $216 and the variable service rate is $.0075 per gallon for 2007.

The District has been accepting and treating septic system waste from septic haulers for the past five years. The rate for septage treatment has generated significant additional revenue for the District. This revenue has been used to fund a capital reserve account, and allow required system upgrades without impacting annual user rates.

The collection system consists of 18 to 20 miles of pipe ranging in size from 8 to 15 inches in diameter. All pump stations are equipped with an electronic surveillance system that allows remote monitoring of each station from the treatment plant. The District added approximately 155 new connections to the system from 2002 through 2006.

Ground water infiltration has been addressed through the upgrading of old private sewer lines and incorporating them into the Sewer District.

The South Berwick Sewer District operates a tertiary treatment plant, which discharges treated wastewater to the Salmon Falls River off Liberty Street. The plant, and its operator, has received national recognition and awards for operating efficiency.

Increased regulatory requirements, including the U.S. Clean Water Act and its amendments, emphasized biological (secondary) treatment of wastewater. District voters passed a bonding referendum in 1993. The current plant construction started in 1994 and went on-line in February 1995. The plant now provides tertiary treatment of wastewater through chemical treatment and process controls in response to further regulatory demands. Tertiary treatment removes/reduces certain harmful chemicals and metals from the wastewater before it can be discharged into the environment.

The plant is designed and licensed to handle an average daily flow of 567,000 gallons per day (gpd) and a peak flow of 2.45 million gpd. The current domestic flow averages 317,000 gpd and it is estimated that the plant is currently operating at 55 percent of its capacity. The current capacity is sufficient to handle an average growth of 25 households per year for the next 20 to 25 years. Once the plant reaches 80 percent of design capacity, federal mandate requires the District to upgrade the facility.

c. Solid Waste

In the 1970's, Maine enacted legislation aimed at phasing out open burning dumps and land fills that contaminate ground water. As a result, South Berwick closed its open burning dump in 1977. The Town Transfer Station was built on the town dump site. The Town then entered into a contract with the Maine Energy Recovery Company (MERC) facility in Biddeford for the incineration of household wastes. The MERC plant is an electric co—generating station that incinerates municipal waste from communities in Southern Maine to produce steam energy which is converted into electricity. South Berwick's contract with MERC includes an obligation to provide the facility with a minimum of 1,500 tons and a maximum of 2,250 tons per year of solid waste over the

life of the contract. In the Town's 1990 Comprehensive Plan the tonnage reported trucked to MERC was 1600 tons.

Trash is collected privately or is brought to the Town's transfer station by individuals. Waste is compacted and hauled, recycled or otherwise disposed of by the Town. In the 2001-2002 fiscal year, the town hauled, by truck, about 1,980 tons of solid waste to the MERC facility. A Transfer Station fee is charged for a variety of waste items that are not accepted by MERC. The schedule of fees is set to cover the town's cost for disposing of the items. For the 2001-2002 fiscal year those fees totaled around $15,000. In the 2001 – 2002 fiscal year, an estimated 12 tons of reuse items were deposited in the Salvation Army bins and another 12 tons of reuse item were passed through the Swap Shop. The Town has a mandatory separation and recycling program for glass, paper, aluminum, plastics and other metals which generated around $25,000 for the 2001-2002 fiscal year. Leaves, wood chips and other composting waste are ground and made available, with a delivery fee, as mulch. Items that may need consideration in the next ten years include improved lighting, traffic patterns and volume, methods of solid waste pickup, increasing population, site modifications that would allow a vehicle capable of hauling larger compacted loads and the limited size of the current site.

The Southern Maine Regional Planning Commission has been studying locations for a regional stump dump since 1987. Several private enterprises provide stump and demolition debris disposal.

d. Police Department

Police services in South Berwick are provided on a 24-hour a day basis, including a full time staffed Dispatch Center. The Police Department currently employs eight full time officers including the Chief of Police. The command structure includes a Lieutenant, Sergeant, and five full time officers. Over the past six years, the Department has provided one officer to serve as a liaison with Marshwood High School. This School Resource Officer (SRO) is primarily assigned to the high school while school is in session. The SRO also assists the primary duty officer during emergency situations or when priority calls for service are pending. The Department currently does not have any specialty officers such as Detective, D.A.R.E., Juvenile, or Crime Prevention. Each full time officer is tasked with responsibility to be the primary investigator in all criminal matters assigned to him/her. The Department does maintain a part time staff of six officers, which is used to augment / assist the full time staff.

The Dispatch Center is staffed with four full time and eight part time employees, providing 24-hour per day coverage. The Dispatch Center is recognized as a Public Safety Answering Point (PSAP) for E-911. This means that all 911 calls made within the jurisdiction are received directly at the South Berwick Police Department and the system provides information similar to an advanced Caller ID. The Center also handles South Berwick Fire, Rescue and Highway. The Dispatch Center also provides full time dispatching for the Berwick Police and Fire Departments. In 2008 the PSAP will be

moved to the York Police Department s a State Wide reduction has been required by legislation.

Based on national, state, county and local standards the South Berwick Police Department has been operating below the minimum recommended staffing levels. The following table depicts the average Police to Citizen ratio: These figures do not include part-time personnel which comprise a significant number of the staff hours for the department. These recommended ratios are solely based on police to citizen and do not take into account the low crime statistics for this area. Current staffing ratio is 1.1 officers per 1000 people.

Table E.2
Police Staffing levels and population

	Officers	2002 Population	# of Officers (incl Chiefs)
Nationally	2.65	288,368,698	
State-wide	1.7	1,286,670	
York County	1.74	192,704	
Berwick	1.57	6,353	10
Eliot	1.34	5,954	8
North Berwick	1.86	4,293	8
Rollinsford, NH	1.51	2,648	4
South Berwick	1.05	6,671	7

Table E.3 shows a breakdown of the number of calls for service the Department has handled since the completion of the last Comprehensive Plan. The number of calls increased substantially beginning in 1998. Many factors are involved in this increase, including a growing town population, increased motor vehicle traffic and the opening of Marshwood High School. These numbers do not include the hundreds of warnings issued to motorist by patrol officers annually.

Table E.3
Police Calls for Service

Year	1991	1992	1993	1994	1995	1996	1997
# of Calls For Services	3,417	2,950	3,404	3,101	3,306	3,117	3,427

Year	1998	1999	2000	2001	2002	2005	2006
# of Calls For Services	4,043	4,002	3,970	4,001	3,996	5,980	7,053

The Department currently has four fully marked patrol cruisers, one of which is a 4x4 vehicle. There is currently one unmarked vehicle (also a 4x4) which is primarily assigned to the Chief of Police. The unmarked vehicle will be fully decaled and placed into the patrol rotation upon the retirement of an older unit. The unmarked vehicle is also used for investigations, surveillance, transporting civilian dispatchers to training and it is also available to line officers who need a vehicle for court or during special events such as parades or Strawberry Festival. The Department has an older model military ambulance converted into a 4x4 off road marked unit. The vehicle is available for unique situations such as a rescue in the woods, checking off road complaints, collecting evidence from remote locations, and transporting material for events.

Over the past ten years with some exceptions, the Town has typically purchased one new police vehicle annually.

In 2002, the Department purchased IMC Records Management and Dispatch computer software. This equipment allows for more efficient collection of data and the ability to analyze trends and patterns. The integrated software allows the Dispatch to transfer valuable data such as complainants information, times, and responding personnel to the Records Management portion. Thus when an officer signs in to complete a written report much of the information is able to be backfilled and duplicate work is eliminated.

Other acquired pieces of equipment include an audio / video recording system for common areas and the booking room in the Department, Mobile Video Recorders in all fully marked cruisers,. computer software that records all phone calls and radio traffic throughout the Department. The system allows for long-term storage and the ability for supervisors to quickly recall and review situations. Three Automated External Defibrillators have been assigned to the marked cruisers since the Department is usually the first responder to medical aid calls. In 2002, the Department upgraded to Sig Saur .45 caliber semi-automatic service weapons. This was consistent with law enforcement studies and recommendations.

Over the past several years the Department undertook minor renovations to better utilize its limited office space. A room, which had previously been used to develop film,

was remodeled in order to expand the Dispatch Center so that the new E-911 equipment could be accommodated. The remaining portion of the room was combined with another small storage area to create a booking room with a securable door. The area does not meet State standards as an official holding area but it does provide a safer environment for the officers to process prisoners.

The Dispatch Center is in need of a modern communications console. The current system is antiquated and has no ability to expand. The Department's back up system is limited in capacity and range. No other off site communication system exists in Town. The 2008 budget includes funds for a new console. The possibility of servicing other communities exists.

Department administration has expressed the needs for updated and expanded space which they would like to have outlined in an updated capitol improvement plan.

e. Fire Department

The Fire Department provides 24 hour per day coverage for the town from one station which is located on Norton Street in the downtown area. There are 40 positions on the department. As of April 2003, there are 32 Officers and Firefighters that provide the fire protection for the town. All members of the department are paid on call firefighters. They get paid by the hour for fire calls, training classes and department meetings. Pay starts at $8.00 an hour for a Probationary Firefighter to $15.00 an hour for an Assistant Fire Chief.

The following table is a breakdown of the number of calls for service the Department has handled since the completion of the last Comprehensive Plan.

Table E.4
Fire Calls for Service

YEAR	*CALLS*
1991	189
1992	130
1993	170
1994	184
1995	183
1996	187
1997	231
1998	209
1999	222
2000	244
2001	307
2002	275

Department Vehicles:
There are seven vehicles that are currently housed at the Fire Station.

- Engine 1 is a 1987 Pierce 1500 gallon per minute pumper. This vehicle will be replaced in the year 2010.
- Engine 2 is a 1988 E-one 1000 gallon per minute pumper. This vehicle will be replaced in the year 2012.
- Engine L2 is a new combination ladder truck and pumper. This new vehicle is expected to last 25 to 30 years.
- Tank 1 is a 3000-gallon tanker with a 500 gallon per minute pump. This vehicle will be replaced in 2020.
- There are 2 forestry vehicles and one SUV used to transport personnel. These vehicles will be replaced as needed.

The present fire station was built in 1996. Expansion of the department would involve building a satellite station to accommodate future growth. As development is concentrated within the designated growth areas, future stations should be located in close proximity to these concentrations of population.

The department has split the town into 3 fire districts as shown on Map E.3. Long-term plans envision a fire station in each district as population levels and resources dictate.

f. South Berwick Emergency Rescue

The South Berwick Emergency Rescue Squad is a non-profit largely volunteer organization responsible for ambulance services for the towns of Rollinsford and South Berwick. It is funded through a combination of per service billing, fundraising activities, and municipal contributions. The cost is shared between the two towns, with South Berwick paying approximately 75 percent of the total. The ratio is based on the number of responses of each town relative to the total and varies annually by a few percentage points. The municipal contribution is for expenses not covered by other sources of revenue and makes up about 26 percent of the total budget.

During the last few years the demands placed on the Rescue Squad have increased dramatically. In 1991, 317 calls were responded to. In both 2001 and 2002 the number jumped to over 700 per year. The activity level has increased every year for the last ten with only a couple exceptions. The 1997 and 1996 Town Reports indicate that Car Accidents were the most frequent calls, with “other medical” and “respiratory problems” the next frequent.

It is important to note that for the amount of time a member spends responding to calls, much more time is spent training. Training required both for initial certification and continuing education represent a huge time investment. Additionally Emergency Responders are required to be knowledgeable about newly important hazards such as, Manual Defibrillation, HIV, and Biohazards.

Facilities:

The Rescue Squad is housed at the Public Safety/Community Center on Norton Street. The facility consists of garage space for two ambulances, a bunk/TV room with sleeping facilities for four, a fairly large office, kitchen area, and training room that is shared with the Fire Department. The space is fairly new having been part of the capitol improvement project completed in 1996. It appears to be adequate for the current and near future activity / staffing levels.

g. Library Services

The South Berwick Public Library opened in September 1971 and began receiving financial support from the Town in March 1972. The library currently has 3 part-time employees and has a book budget of $8,449 per year. To date, it houses 18,000 volumes, and has access to more through national inter-library loan. It is open 36 hours per week with hours ranging from 9:00am to 8:00 pm.

The South Berwick Public Library is overseen by an advisory board. The library operates as a department of the town. The library's friends group, which is currently being revitalized, concentrates on funding and outreach activities. The library has an estimated 2,500 registered borrowers. This represents 37% of South Berwick's 2003 population of 6,700.

Funding for the maintenance of the library building and grounds is generated from the second-floor rental. In addition, the town of South Berwick provides funding for the library, including staff salaries, materials, a portion of the utilities, cleaning, mowing, and snow removal.

Library staffing is as follows:

Director (32 hours per week)
Children's Librarian (24 hours per week)
Library Aide (20 hours per week)
6 Volunteers (about 4 hours per week)

Staffing levels are currently below the State of Maine recommended levels.

The library building provides 1,500 square feet which is below industry standards for library size. A new library site located within the designated growth area is currently being discussed.

Marshwood High School's library is also open to the public. It contains 21,000 volumes and is open 53 hours per week Monday through Friday with varying hours.

h. Public Schools

Maine School Administrative District #35 (MSAD #35) is comprised of the towns of South Berwick and Eliot. Total enrollment for the district is currently 2,761 students. With the completion of several building projects MSAD #35 has been able to provide space for students and programs across the district. Marshwood High School opened its doors to students in September of 1999. The addition to Marshwood Junior High School was completed in the fall of 2001. The Junior High project added eight classrooms, two art rooms, a vocal instruction room and bathrooms to the existing facility. A Superintendent's office built on district land and opened in February 2002

offers better working space and the advantages of ownership versus renting. The district does not expect any new building projects within the next ten years.

Central School is located on Main Street in downtown South Berwick. The school serves Pre-k through grade three students from South Berwick. The main building was built in 1925. Later additions include the annex and gymnasium built in 1952 and finally the primary wing built in 1973. The school is situated on 7+ acres of land. Outside there is a large playground for students and a basketball court. A parking lot is located at the rear of the building. Inside, the building has twenty-five classrooms, a cafeteria, gymnasium with a stage, library, staff room, nurse's office and various small rooms for special education services. A small red portable, located between the main building and the wing, is used for OT/PT services.

Marshwood Middle School (MMS)serves children from Eliot and South Berwick in grades four and five. MMS has thirty classrooms, cafeteria, library, and gymnasium with a stage, home economics room, computer lab, soccer field and a baseball/softball diamond.

Marshwood Junior High School (MJHS) serves children from South Berwick and Eliot in grade 6th through 8th. MJHS has 30 classrooms, 2 art rooms, band room, vocal instruction room, home economics room, library, computer lab, cafeteria and gymnasium with a shared stage. Seventh graders have laptop computers for their use provided through funding by the State of Maine. The outdoor facilities include a football field, soccer field, baseball diamond, softball diamond and several practice areas. There is a track although this is in poor condition at this time. MJHS also shares its site and parking lot with the new superintendent's office building.

Marshwood High School (MHS) provides service to students from Eliot and South Berwick in 9th through 12th grade. MHS was built to take advantage of new technologies available for student learning. The school's Science facilities provide a rich learning environment. Computer labs are available for student use. Classrooms are wired with video monitors and classroom computers. MHS has an auditorium for school and community use with a seating capacity of 605. Although MHS is expected to meet the needs of the district in the future, the building was designed with expansion possible to 1500 students. The athletic facilities include the following:

- Stadium Field (used for Football, Soccer, and Lacrosse) encircled with a surface 400m, six-lane track. Stadium bleachers include a heated press box and PA system. The stadium is lighted for night events.
- Secondary Field (used for Soccer and Lacrosse) is located behind the stadium. Also behind/underneath the stadium is a concession stand, with electricity and gas; restrooms; team rooms; a storage room and a grounds storage room.
- Softball and field hockey fields are located next to the stadium area. All fields have electrically-powered score boards.

- Practice field area is next to the softball and field hockey fields, and includes throwing areas for track and field (discus, javelin, and shot put).
- Baseball field is located on the opposite side of the school campus, with fully enclosed dugouts. The outfield is used as an additional soccer field in the fall season.
- Tennis courts (5) are located next to the baseball field.
- Gymnasium – seats approximately 1000 – 1200, with retractable basketball hoops (6).
- Wrestling room – used for wrestling and small exercise activities.
- Wellness center –Includes weights and cardiovascular equipment.

Table E.5
MSAD #35 Facilities

Location	*Grades*	*Capacity*	*Current Enrollment*
Eliot	Pre-K to 3	550	365
South Berwick	Pre-K to 3	550	502
South Berwick	4 and 5	750	394
Eliot	6 to 8	825	658
South Berwick	9 to 12	1100	842

Source: MSAD #35

Enrollment Projections:

MSAD #35 hired Planning Decisions of South Portland, Maine to project student enrollments for the next ten years. Planning Decisions based their research on birth rates and the net in-migration of preschool-aged children over the last five years. Although the birth rate for MSAD #35 residents declined on average the net in-migration of students increased slightly. Taken together the result has been class sizes that have on average, declined over the last ten years. Planning Decisions has completed a "best fit" model using historical enrollment trends. It is the most likely scenario to occur in MSAD #35 if future enrollment follows the historical pattern of enrollment.

Table E.6
School Enrollment Projections 2003-04 through 2012-13 (K-12)

Year	Elementary School	Middle School	Junior High	High School
2003-2004	854	376	663	851
2004-2005	850	391	619	866
2005-2006	861	390	615	864
2006-2007	856	386	611	882
2007-2008	854	387	610	860
2008-2009	846	387	623	823
2009-2010	842	396	606	835
2010-2011	837	392	620	816
2011-2012	847	380	616	828
2012-2013	847	377	626	826

Source: MSAD #35 (2002)

h. Municipal Buildings

A 1989 Municipal Buildings Study resulted in a Capital Improvements Plan. The Plan called for the renovation of the existing Town Hall, moving the Fire Department and Rescue to a new Town Municipal Building and building a new Town Garage at its existing site with the addition of an adjacent lot. The Capital Improvements Plan also addressed the needs of the Town's Transfer Station. The Plan was designed to satisfy the Town's building needs until 2000 and has been executed. As development is encouraged to be located within the designated growth area, it is vital to ensure that future municipal facilities are located within this area as well.

Town Hall & Police Station

The current Town Hall, built in the 1920s and formerly the St. Michael's School, was purchased by the Town in 1975. The building is located at 180 Main Street and has two stories and a basement. The basement houses the Police Station as well as office space. The first floor contains municipal offices and the second floor contains a meeting hall and additional office space. The Capital Improvements Plan called for improvements to the municipal building in 1990 and 1994. The 1990 improvements included repairs to the roof, windows (including the addition of storm windows) and chimney; the addition of an elevator and renovations to the second floor auditorium. Interior renovations to the Town Offices, including the basement were made in 1994.

South Berwick Community Center

The Town Community Center, located on Norton Street, was completed in 1995. It houses the Fire Department and Rescue Squad including a shared training room and showers. The Municipal Building also houses the Senior Center. It contains a kitchen, dining and social spaces, as well as offices for the Town Social Services Director and the Town Recreation Director.

Town Garage

The Town Garage is located on Front Street. The 1989 Capital Improvements resulted in the purchase of adjacent land and the construction of a new Town Garage in 1990. The facility also has an enclosed salt storage building.

Transfer Station

The 1989 Capital Improvements Plan led to improvements including ash pile removal, transfer station expansion in 1993 and lot redesign and pavement in 1994. The facility is currently servicing the town's waste disposal needs with three days of operation per week. The town has obtained a small adjacent property to facilitate expansion. Water quality is still being tested at the landfill area of the Transfer Station.

Library

The Library is currently located in space leased from the Jewett – Eastman Memorial Committee. The town has purchased property recommended by a site committee, adjacent to the town-owned Powder House Hill parcel on Agamenticus Road. The Town is studying options for a new Library.

Teen Center

The Town's Teen Center is located on Agamenticus Road. The cinder block building with metal roof houses a teen recreation center on the first floor and storage space on the second. The building is serviced with town water and sewer.

Former Rescue Building

The Town owns a 2-bay concrete building at the intersection of Spring, Goodwin and Dawson Streets. This building, built in 1958 formerly housed the South Berwick Rescue Squad. In addition to the bays the building has a small office and a bathroom. The Town assumed ownership of the building upon the completion of the Community Center in 1995. Currently it houses the Food Pantry.

Powder House Ski Hill Buildings

Following the Town's purchase of the parcel of land including the Powder House Ski Area in the 1980s, the town took ownership of four small wooden buildings associated with the operation of the Ski Hill.

Parks and Recreation Department

South Berwick's Recreation Department operates a number of recreation programs for the community. Active programs include: after school programs (Portland Sea Dog baseball games, Portland Pirate hockey games) special events (Father/Daughter Dance, Easter Egg hunt, North Pole calling, Halloween activities), a summer day camp, a summer activities program for ages 13-15, Pee-Wee soccer for ages 3-5, a road race, a senior citizens program and winter ski trips. The Town subsidizes at least part of all these programs. The Department employs a full-time director who works with a Recreation Commission appointed by the Town Council.

Parks and Recreation Facilities

The Town owns 2 tidal boat launch ramps and picnic rest area facilities on the Salmon Falls River, as well as a Town Forest, a ski/sledding area and a number of vacant parcels of land. In addition, South Berwick leases 6 tennis courts from Berwick Academy. Other public recreational facilities are located at Central School, Marshwood Middle School and Marshwood High School. Vaughn Woods State Park is a 165 acre area located on the banks of the Salmon Falls River. Private facilities include 4 historic structures, a Rod and Gun Club, a church-owned gymnasium and Berwick Academy. Recreation facilities are summarized by ownership in Table E.7 and by type in Table E.8.

Table E.7
Recreation Facilities By Ownership

Area	*Tax Map/Lot*	*Acres*	*Facilities*	*Comment*
STATE OWNED				
Buildings/Storage	1-13 Route 236	7.38	State Highway Dept. property	
Vacant	2-1	18.5	Vacant	Inland Fisheries & Wildlife (IF&W) – York Pond Cons. Area
Vacant	2-3	68.5	Vacant	IF&W – York Pond Cons. Area
Vacant	2-31	28.9	Vacant	IF&W – York Pond Cons. Area
Vacant	2-63	58	Vacant	IF&W – York Pond Cons. Area
Vacant	4-6	9	Vacant	IF&W – Mt. Agamenticus (Mt. A.)
Vacant	4-39	14	Vacant	IF&W – Mt. A.
Vacant	4-41	20	Vacant	IF&W – Mt. A.
Vacant	4-43	136	Vacant	IF&W – Mt. A.
Vacant	4-45	20	Vacant	IF&W – Mt. A.
Vacant	4-46	48	Vacant	IF&W – Mt. A.
Vacant	4-73C	5.3	Vacant	IF&W – Mt. A.
Vacant	4-74	26.3	Vacant	IF&W – Mt. A.
Vacant	4-76	449.4	Vacant	IF&W – Mt. A.
Vacant	4-79A	19.5	Vacant	IF&W – Mt. A.
Vacant	4-85	13	Vacant	IF&W – Mt. A.

Area	*Tax Map/Lot*	*Acres*	*Facilities*	*Comment*
Vacant	5-1	300	Vacant	IF&W – Mt. A.
Vacant	5-3 (incl w/5-1)		Vacant	IF&W – Mt. A.
Vacant	5-22 C-01	16	Vacant	IF&W – Mt. A.
Vacant	5-43A	9	Vacant	IF&W – Mt. A.
Vacant	5-44	10	Vacant	IF&W – Mt. A.
Vacant	5-50	10	Vacant	IF&W – Mt. A.
Vacant	5-51	41	Vacant	IF&W – Mt. A.
Vacant	5-52	85	Vacant	IF&W – Mt. A.
Vacant	5-52A	10	Vacant	IF&W – Mt. A.
Vacant	5-52B	10	Vacant	IF&W – Mt. A.
Vacant	5-52C	15	Vacant	IF&W – Mt. A.
Vacant	5-55	10	Vacant	IF&W – Mt. A.
Vacant	5-56	9	Vacant	IF&W – Mt. A.
Vacant	6-3	135	Trails, etc.	Vaughn Woods State Park
Vacant	9-7D	0.8	Vacant	
Vacant	29-15A	0.3	mitigation	IF&W
RR Turntable	Fife's Lane/Route 236	0.25	Vacant	
TOWN OWNED				
Vacant	2-4	8	Cons. Comm.	York Pond Cons. Area
Vacant	2-36A	10	Cons. Comm.	Mt. A Cons. Area
Vacant	2-37	10	Cons. Comm.	Mt. A Cons. Area
Vacant	2-39	5	Cons. Comm.	Mt. A Cons. Area
Vacant	2-39A	5	Cons. Comm.	Mt. A Cons. Area
Vacant	2-40	17	Cons. Comm.	Mt. A Cons. Area

Area	*Tax Map/Lot*	*Acres*	*Facilities*	*Comment*
Vacant	2-50	30	Cons. Comm.	Mt. A Cons. Area
Vacant	2-51	16	Cons. Comm.	Mt. A Cons. Area
Vacant	2-57	40	Cons. Comm.	Mt. A Cons. Area
Vacant	2-61	7.4	Cons. Comm.	Mt. A Cons. Area
Vacant	3-17	4.5	Cons. Comm.	Mt. A Cons. Area
Vacant	3-36A	10	Cons. Comm.	Mt. A Cons. Area
Vacant	3-39	3.9	Cons. Comm.	Mt. A Cons. Area
Vacant	3-46	16	Cons. Comm.	Mt. A Cons. Area
Vacant	3-49	20	Cons. Comm.	Mt. A Cons. Area
Vacant	3-52	22	Cons. Comm.	Mt. A Cons. Area
Vacant	3-62	38	Cons. Comm.	Mt. A Cons. Area
Vacant	3-63	24	Cons. Comm.	Mt. A Cons. Area
Vacant	4-64	4	Cons. Comm.	Mt. A Cons. Area
Vacant	4-73	17.2	Cons. Comm.	Mt. A Cons. Area
Vacant	5-40	4.2	Cons. Comm.	Mt. A Cons. Area
Vacant	7-65 (16)	2.38	Open space	subdivision
Vacant	8-91		Open space connector to ET Town Forest	Aggie estates-cons. comm. developing management plan
Vacant	9-28	21.6	Well heads	Hooper Sands contamination
Demolished building	9-52	0.9	Flood plain	
Buildings/Park	11-1	38.9	Sports fields/open space	Little League, soccer fields, etc.
Buildings	11-364	3.2	Transfer Station	
Buildings	11-37	1	Dwelling	
Vacant	12-68	88.5	trail	Town Forest – Cons. Comm.

Area	*Tax Map/Lot*	*Acres*	*Facilities*	*Comment*
Vacant	12-77	11	trail	Cons. Comm.
Vacant	12-78	3.9	Vacant	Cons. Comm.
Vacant	15-16 Route 101	2.4	Town landing, waterfront rest area	Boat ramp/picnic area/scenic
Vacant	25-5		Counting House Park	Boat portage, picnic, fishing, scenic
Vacant	25-31	0.2	Counting House Park	annex
Vacant	28-56	2.1	Vacant	
Vacant	28-70	0.9	Parking area and pong	Opposite to Community Center
Vacant	28-75	0.4	Parking area	Post Office
Building	28-105A	12.7	Ski/sledding area/Powderhouse Hill	Ski Lodge/Hut
Parking	28-143	0.2	Parking	On Paul Street
Municipal Building	28-170 Main Street	1.9	Town offices and meeting rooms	Benches/rest area in front of building
Buildings/Storage	31-102	4.4	Highway Dept.	
Building	31-121	0.2	Former EMT building	
Building	31-132	0.7	Community Center/Public Safety Center	Fire Dept/EMT/offices/Community kitchen/meeting rooms
Building	31-132A	3	Apartments and open space	Formerly Cummings Mill Building
Building	33-140	9.3	Soccer fields/parking/skate board park	Location for Teen Center
	34-41	0.4	Vacant	

Area	*Tax Map/Lot*	*Acres*	*Facilities*	*Comment*
	34-59	0.4	Vacant	
	34-62	9.3	Open Space	Subdivision
	35-106	0.8	Open Space	Subdivision
	35-107	1.1	Open Space	Subdivision
MSAD 35 SCHOOL RECREATION FACILITIES				
Central School	27-83	8.4	Multipurpose field, playground, 1 gymnasium	
Marshwood High School	6-51	51	Athletic fields for football, baseball, softball, lacrosse, soccer, field hockey, track and field facilities, tennis courts, outdoor basketball areas, gymnasium, auditorium, jogging-walking trail	
Marshwood Middle School	24-9	13	1 ballfield, 1 multipurpose field, 1 gymnasium, 2 outdoor basketball hoops	
PRIVATELY OWNED FACILITIES				
Rod and Gun Club	1-14 Route 236	46.5	Building and land, target range	Owned by Rod and Gun Club
Hamilton House	6-2 Vaughn's Lane and Salmon Falls River	35	House tours, garden walk	Owned by Historic New England
Jewett House	28-78 Portland Street	1.2	House tours	Owned by Historic New England
Jewett-Eastman Memorial	28-78A Portland Street	.46	Library	Jewett-Eastman Memorial Committee
Counting House Meeting Place	25-4 Liberty Street	.09	Building	Owned by Olde Berwick Historical Society

Area	*Tax Map/Lot*	*Acres*	*Facilities*	*Comment*
Berwick Academy	26-14 through 26-17 Academy Street, Wadleigh Lane	73.5	Athletic fields for soccer, lacrosse, field hockey, baseball, softball, cross country trails, 6 tennis courts, 1 gymnasium and field house, 1 banquet hall, 1 outdoor basketball court	Owned by Berwick Academy Trustees
Spring Hill Recreation Area	12-47 Knights Pond Road	81	Banquet rooms, beach/swimming area, picnic tables, bath house	Owned by Spring Hill Corp.
Outlook Golf Course	11-32	95 (South Berwick & Berwick)	18 hole gold course with driving range	
Federated Church	28-2		Meeting area	
OTHER FACILITIES				
Vacant	30-19	4	Town of Rollinsford	
Vacant	2-6	100	GWRLT	York Pond Cons. Area
Vacant	2-35	15	TNC	Mt. A. Cons. Area
Vacant	2-36	10	GWRLT	Mt. A. Cons. Area
Vacant	2-43	23	GWRLT	Mt. A. Cons. Area
Vacant	3-47A	10	GWRLT	Mt. A. Cons. Area
Vacant	4-44	11	GWRLT	Mt. A. Cons. Area
Vacant	4-47	10	GWRLT	Mt. A. Cons. Area
Vacant	5-14	96	GWRLT	Mt. A. Cons. Area
Vacant	9-33	22	Black Swan	Open space from subdivision
Vacant	10-26	97	GWRLT	Mt. A. Cons. Area
Vacant	10-27A	15	GWRLT	Mt. A. Cons. Area

Area	*Tax Map/Lot*	*Acres*	*Facilities*	*Comment*
Vacant	11-14	1.6	SB Water District	Watershed protection
Vacant	11-15	41	SB Water District	Watershed protection
Well site	12-37A	17	SB Water District	Watershed protection
Vacant	12-37-004	9	SB Water District	Watershed protection
Vacant	14-42	13	GWRLT	Mt. A Cons. Area
Vacant	22-1	7.6	Historic New England	Waterfront
Vacant	23-47	2	GWRLT	Waterfront
Vacant	23-7 B-9	12	Portsmouth Housing Foundation	Open space from subdivision
Buildings	25-2	5.6	SB Sewer District	Treatment facilities adjacent to Counting House Park
Building	26-2	3	SB Water District	Water storage
Sport field	32-105	3.4	Old Mill Comm. Assn.	Open space from subdivision
Vacant	32-106	3	Old Mill Comm. Assn.	Open space from subdivision
Pool & tennis	32-107	3.7	Old Mill Comm. Assn.	Recreational land from subdivision
Vacant	32-108	10	Old Mill Comm. Assn.	Open space from subdivision
Vacant	32-109	3.3	Old Mill Comm. Assn.	Open space from subdivision
Vacant	32-110	7	Old Mill Comm. Assn.	Open space from subdivision
Vacant	34-63	9	SB Water District	Watershed protection

Table E.8
Recreation Facilities By Type

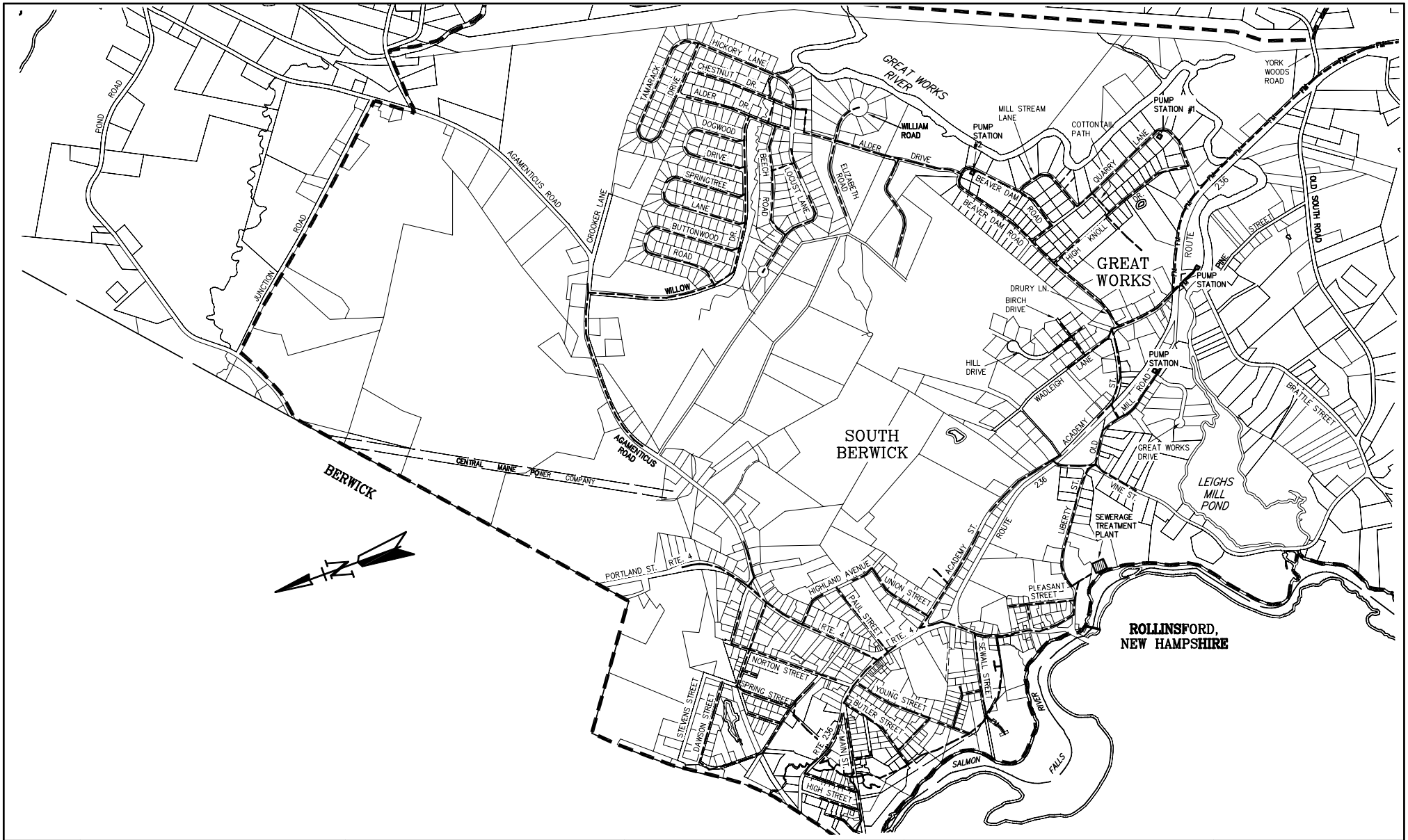
Name	Acres	Ownership	Comment
HISTORIC SITES			
Hamilton House	35	Private	House tours, garden walk
Sarah Orne Jewett House	1.2	Private	House tours
Eastman House/Public Library	.46	Private	Public library
Olde Berwick Historical Society County House	.09	Private	Meeting place, historical exhibits
BALLFIELDS			
Town of South Berwick – Willow Drive	2	Town	2 Little League fields, 1 softball field
Marshwood High School	51	MSAD 35	1 ballfield-regulation size, 1 softball field
Marshwood Middle School	2	MSAD 35	1 ballfield (minor league, softball size), 1 multi-purpose field (soccer)
Berwick Academy	73.5	Private	1 ballfield-regulation size
PLAYGROUNDS			
Berwick Academy		Private	Various apparatus
Central School		MSAD 35	Various apparatus
Shoetown Playground		Town	Designed for ages 2-5
TENNIS COURTS			
Marshwood High School	50	MSAD 35	5 tennis courts
Berwick Academy	2	Private	6 tennis courts (leased land) open to town citizens at scheduled times

Name	Acres	Ownership	Comment
GYMNASIUMS			
Central School		MSAD 35	1 gymnasium
Marshwood Middle School		MSAD 35	1 gymnasium
Marshwood High School		MSAD 35	1 gymnasium
Berwick Academy		Private	Gymnasium and field house
SKIING/SLEDDING			
Powder House Hill	2	Town	Downhill slope/1 lift (hourly capacity 100)
BASKETBALL COURTS- OUTDOORS			
Berwick Academy		Private	2 hoops
Marshwood High School		MSAD 35	4 hoops in stadium parking area
BASKETBALL COURTS - INDOORS			
Berwick Academy		Private	1 court plus 3 potential in Field House
Central School		MSAD 35	1 court
Marshwood Middle School		MSAD 35	1 court
Marshwood High School		MSAD 35	1 court
HIKING/CROSS COUNTRY TRAILS			
Vaughn Woods State Park	165	State	12 picnic tables, 5 trails, grills, outhouses
REST AREAS/SCENIC PARKS			
Town Landing at William Bray Park	3	Town	Waterfront rest/picnic area
Chicks Brook Park		Town	Rest Area
Town Hall		Town	4 benches, rest area

Name	Acres	Ownership	Comment
Counting House Park		Town	Waterfront rest/picnic area
Vaughn Woods State Park	165	State	Scenic views with benches, 12 picnic tables
Joy Park		Town	Scenic view with one bench
BANQUET HALLS			
Spring Hill		Private	2 banquet rooms
Berwick Academy		Private	1 banquet hall
BEACH AREAS			
Spring Hill		Private	Private beach with picnic tables, bath house
PLAYING FIELDS/OUTDOOR TRACK			
Berwick Academy		Private	2 soccer, 2 lacrosse, 1 multipurpose
Central School		MSAD 35	multipurpose
Marshwood Middle School		MSAD 35	multipurpose
Marshwood High School		MSAD 35	1 football, 2 soccer, 1 lacrosse, 1 field hockey, 2 secondary fields (soccer, lacrosse), 1 outdoor track - paved
Willow Drive		Town	1 Multi Purpose Field, 1 regulation soccer field (converts into 2 youth soccer fields)

MAPS

Map E.1 South Berwick Sewer District Service Map
Map E.1-A South Berwick Sewer District Boundary
Map E.2 South Berwick Water District
Map E.3 Fire Districts



E1

CIVIL CONSULTANTS

ENGINEERS - SURVEYORS - PLANNERS
P.O. BOX 100 - SOUTH BERWICK, MAINE 03908
207- 384-2550 civcon@civcon.com

LEGEND

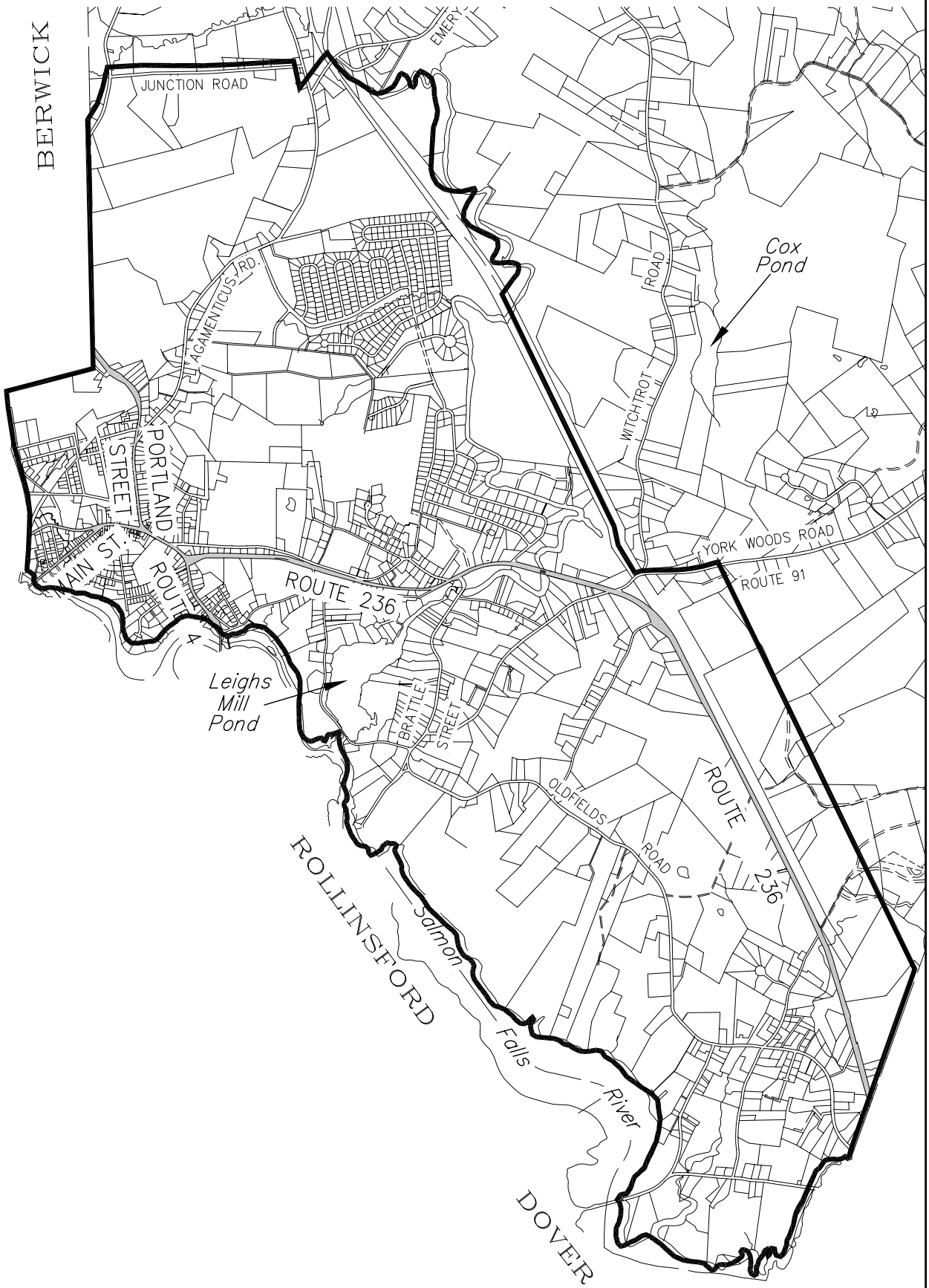
- SEWER DISTRICT BOUNDARY
- SEWER LINES/MANHOLES
- FORCE MAIN

FEET 600 0 600 1200 1800
METERS 300 0 300 600

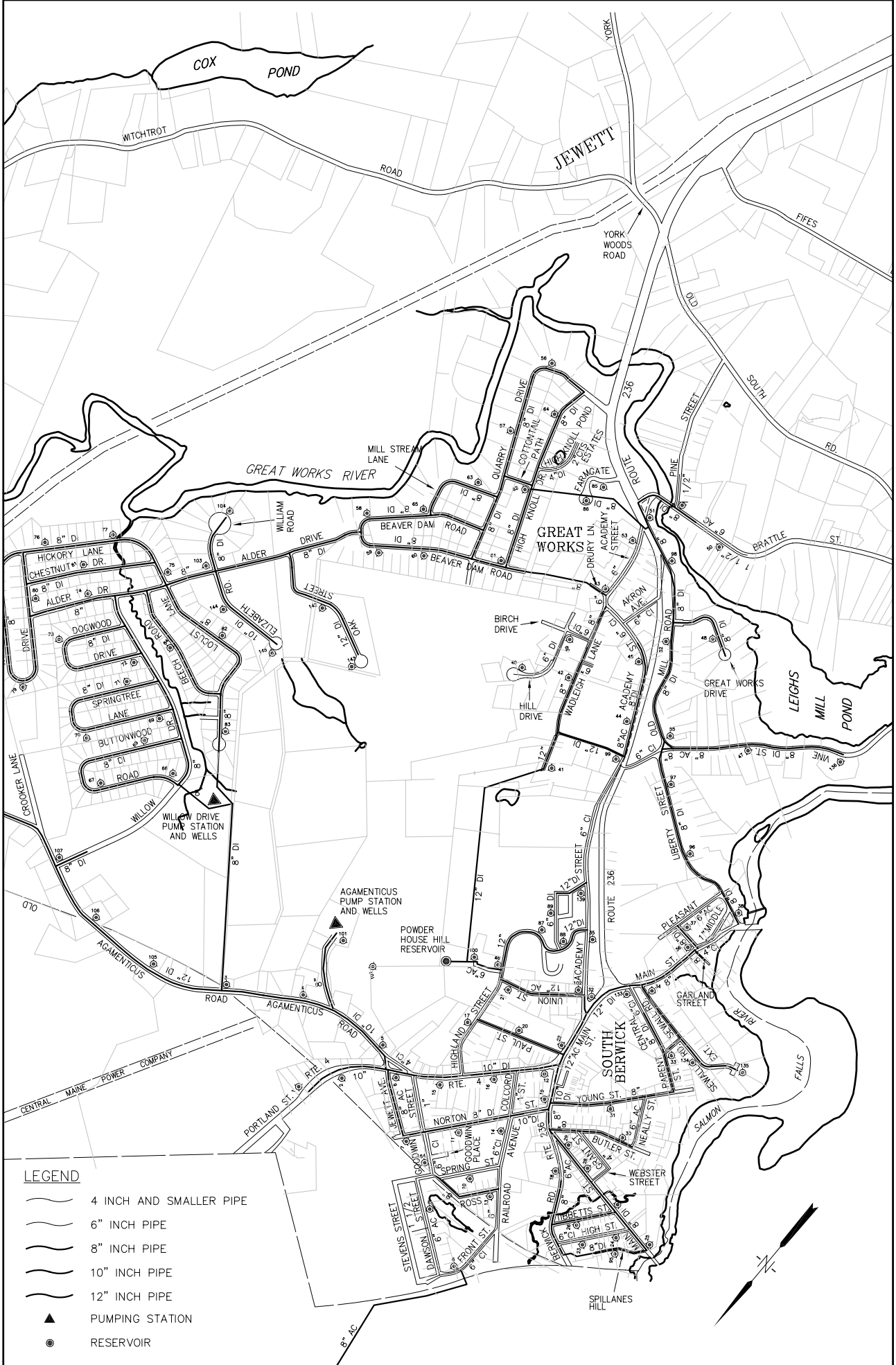
REVISED AND REPRINTED TO FEBRUARY 2005

TOWN OF
SOUTH BERWICK
YORK COUNTY, MAINE

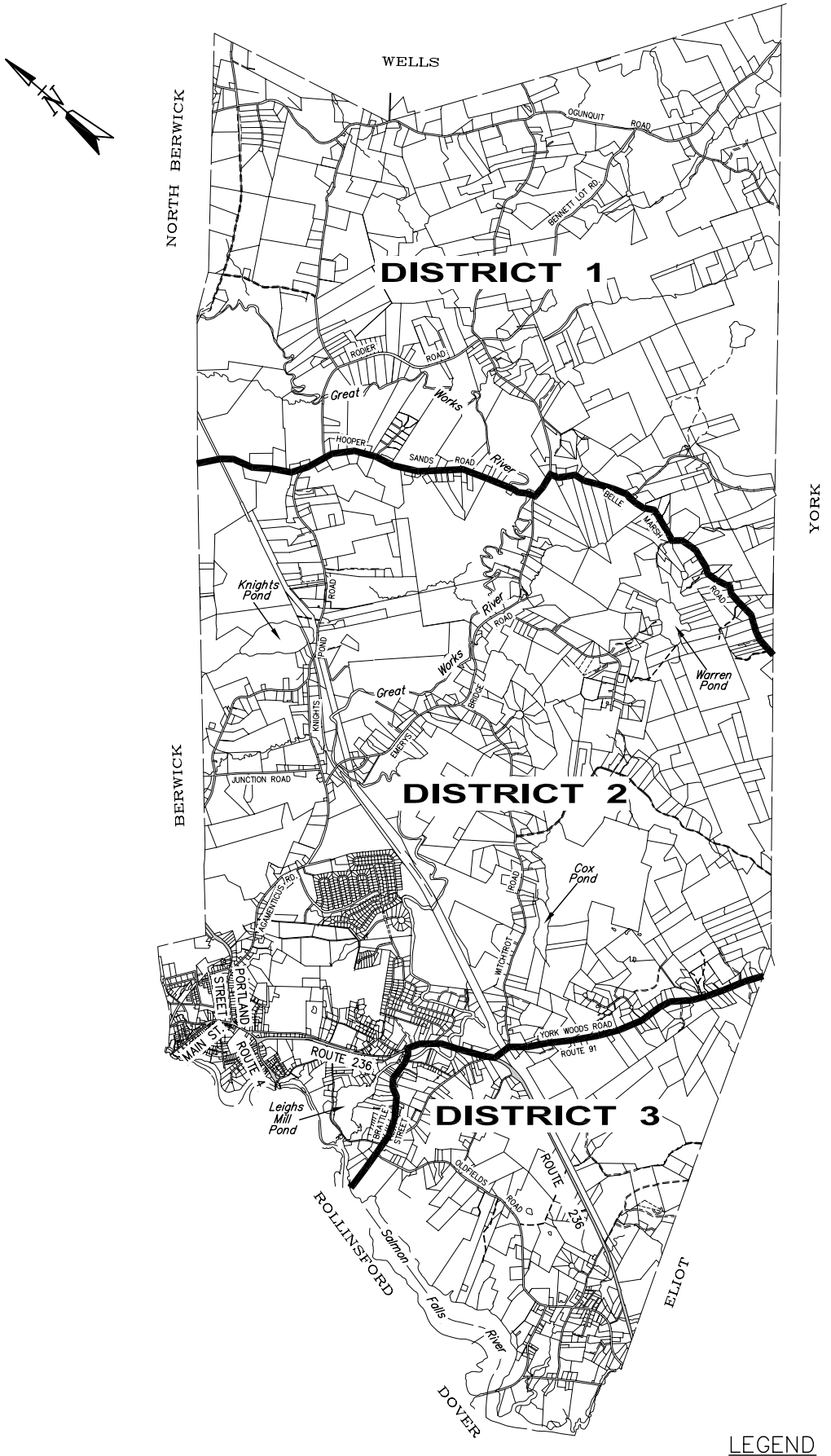
SEWER DISTRICT SERVICE MAP



E1 – A	ENGINEERS - SURVEYORS - PLANNERS P.O. BOX 100 - SOUTH BERWICK, MAINE 03908 207- 384-2550 civcon@civcon.com	FEET 1000 0 1000 2000 3000 METERS 500 0 500 1000 REVISED AND REPRINTED TO FEBRUARY 2005	TOWN OF SOUTH BERWICK YORK COUNTY, MAINE	SEWER DISTRICT BOUNDARY



E2	E A R T H T E C H 500 SOUTHBOROUGH DRIVE SOUTH PORTLAND, MAINE 04106	FEET 500 0 500 1000 1500 METERS 250 0 250 500 REVISED AND REPRINTED TO APRIL 2004	TOWN OF SOUTH BERWICK YORK COUNTY, MAINE	WATER DISTRIBUTION SYSTEM



E3	ENGINEERS - SURVEYORS - PLANNERS P.O. BOX 100 - SOUTH BERWICK, MAINE 03908 207- 384-2550 civcon@civcon.com	FEET 2000 0 2000 4000 6000 METERS 1000 0 1000 2000 REVISED AND REPRINTED TO MARCH 2005	TOWN OF SOUTH BERWICK YORK COUNTY, MAINE	FIRE DISTRICT MAP

F. DOWNTOWN

1. Introduction

Villages are walking places. After driving to them, users should be able to walk to a variety of locations within them. A well-designed streetscape should have clear and safe pedestrian links between parking and retail areas. Safely linking the downtown area with public areas encourages people to take walks and assists in defining downtown as a central gathering place for the community. Maintaining a constant rhythm and scale to buildings also assists in creating definition to a downtown. Downtown revitalization entails a return to community self-reliance, empowerment and the rebuilding of commercial districts based on traditional assets including unique architecture, personal service, local ownership and a sense of community. Initial perceptions of a community's health tend to be based on the appearance and vitality of the downtown.

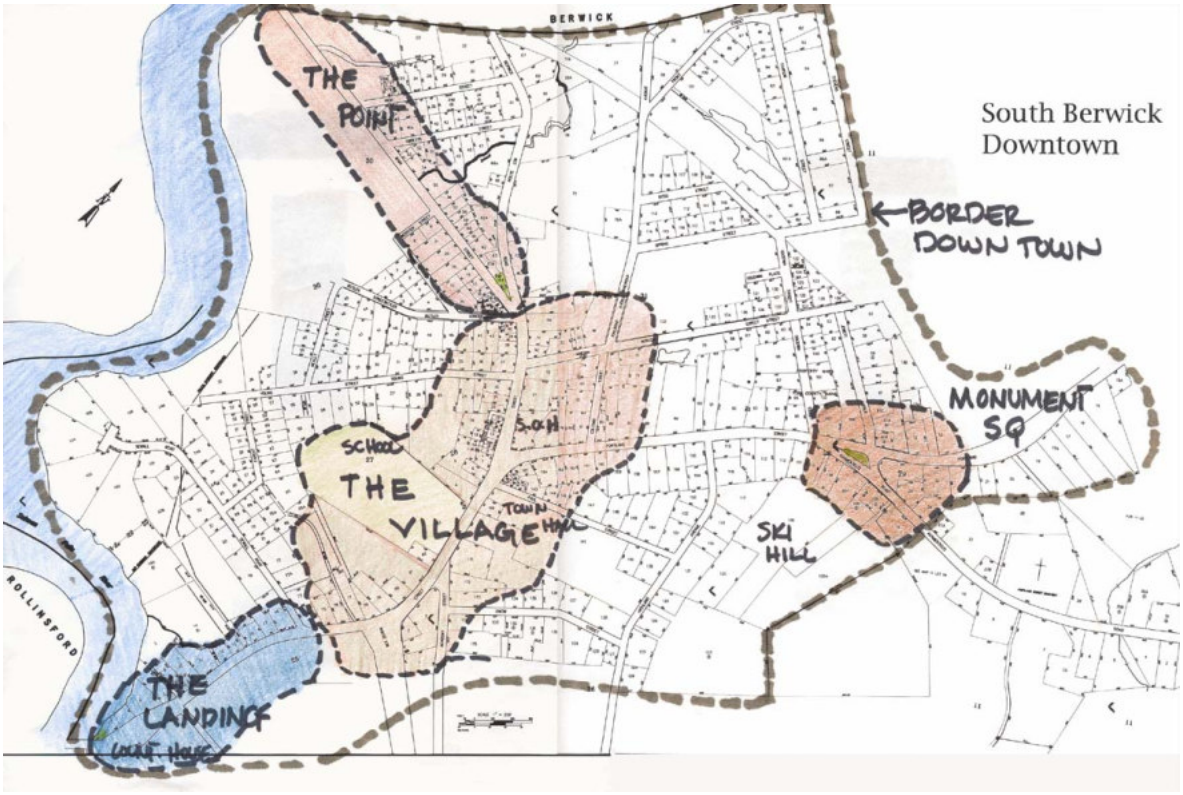
With renewed emphasis on revitalization of the downtown of South Berwick, efforts to encourage infill development, reduce sprawl, energize the economic base and foster a pedestrian and bicycle friendly village center can enhance the community. Downtown improvement tends to be incremental and requires attention to a wide range of factors. Substantial public improvement projects can assist in downtown revitalization, but taken alone often fail to address the underlying causes of commercial district decline.

2. Key Findings

Downtown South Berwick is a key part of the community's identity. Strong interest exists in preserving the building style and layout of downtown. However, challenges from big box retail stores in surrounding communities as well as retail in neighboring New Hampshire, without a sales tax, makes the retail climate more difficult. Traffic, both through and local, frequently congests the downtown core, limiting accessibility and convenience. Truck traffic poses additional safety challenges as well as creates a less appealing pedestrian environment. Parking management in most downtowns is an issue. Consumer expectations are formed by lower density commercial development in outlying areas with extensive parking lots. Key public facilities, such as municipal offices, police station and post office are downtown anchors, generating activity in the area. The built environment of downtown includes a historic district and several properties listed on the National Register of Historic Places. The aesthetics and building style of downtown define the village character of South Berwick. Downtown is a traditional center of activity and public interaction. Events help to generate this level of activity and engagement of local residents and visitors alike. Finally, opportunities exist to enhance the qualities of public space infrastructure to encourage safe and enjoyable non-motorized movements through and around downtown.

Concentrating mixed use activity in the village core as well as adjacent neighborhoods as shown on Map F.1 will maximize opportunities to encourage walking from residential sites to commercial and institutional uses. Currently, high concentrations of residential uses are within walking distance of the village center. Maintaining and encouraging further residential growth in this area will strengthen the variety of downtown activities.

Map F.1
Downtown neighborhoods



3. Public Opinion Survey and Community Vision Meeting Results

Downtown South Berwick is an asset of which the community is proud and ranks as one of the top places residents take visiting friends and relatives. In addition, restaurants, historic houses and events in the downtown are cited as important places to visit. At the same time, when asked to identify serious challenges facing South Berwick over the next 5 years, village center issues rose to the top of the list of most frequently cited challenges. These included traffic, parking, strengthening the downtown business climate, preserving the aesthetics and character of the village center and a need for overall maintenance and encouragement of downtown vitality.

4. Traffic and Transportation

Managing vehicular and pedestrian users of downtown South Berwick presents several challenges. Issues of concern include traffic volume, including through truck traffic, pedestrian safety and comfort, bicycle access and parking management.

Congestion can clog through traffic in downtown South Berwick, increasing travel delays. This kind of volume can also push some users to identify alternate routes. Alternate routing, while reducing current traffic flow in the downtown, may also reduce exposure of businesses in the downtown. If traffic issues remain unresolved, avoidance of downtown will occur for residents and potential customers. Truck traffic through the

village area generates noise, additional road wear and congestion. Finding alternate routes for through trucks and reducing the incentive for trucks to use Routes 236 and 4 rather than the Maine Turnpike and other through routes may simultaneously generate additional visits while reducing some degree of congestion. Traffic downtown is not a bad thing, it is needed to support economic activity downtown, and without car traffic, businesses would be hard pressed to survive. The key is to find a balance between vehicles and pedestrians.

Pedestrian safety and comfort is crucial in the downtown. Village centers succeed when walking is encouraged. Implementing traffic calming and controls can reduce the speed of traffic and provide buffers between moving vehicles and pedestrians. Crosswalk safety depends on appropriate placement, proximity to traffic calming devices and high visibility devices to alert passing motorists. Improving sidewalk connections from downtown into neighborhoods and around the village core can expand the distance that users will choose to remain on foot, rather than use their car. Amenities such as benches and trees provide break points for walkers as well as gathering places. Pedestrian activity on the sidewalk enlivens a downtown and encourages others to stop or plan a return visit as well as to consider exploring beyond their intended destination. Alternatively, sidewalk areas that feel exposed, barren or empty encourage shorter visits, as people want to finish their intended task and return to the comfort of their vehicle or home.

Shorter trips from outlying neighborhoods and subdivisions can be made into the downtown on bicycle or other non-motorized transportation. However, no bicycle lanes exist currently. There is limited room along Main Street for non-motorized vehicles to travel along a heavily traffic road and parked cars. The absence of separate travel lanes for bicycles leads residents and visitors to rely more on walking and driving. In addition to providing provision for movement of bicycles to and through the downtown, provision of parking facilities, such as bicycle racks, is important.

Parking management is a critical issue for all downtowns. As consumers become used to large expanses of parking at out of town retail facilities, downtown's smaller lots and on-street parking can be a deterrent. Small satellite parking areas dotted through downtown can support village activities if they have safe, convenient and comfortable connections to the downtown core and drivers are provided adequate and clear information about the location of such areas as they enter the downtown area. Limited space makes strategic sharing of parking spaces vital. Commercial facilities that require parking during the day may be able to have parking spaces used in the evenings for residential uses. Undertaking a comprehensive assessment program of existing inventory, turnover and occupancy data and estimated needs based on current and projected uses can assist in an educational program to better manage existing parking. Strict application of off-street parking regulations would be an obstacle to the continued vitality of the village, as creation of on-site parking lots could disrupt the denser development pattern and reducing the size of buildings that could be developed on existing lots.

5. Built Environment

Downtown South Berwick possesses a distinctive architectural style and scale. The unique character of the village area can be enhanced by reinforcing historic preservation activities, review of building requirements for new structures and developing strategies for revitalization and renovation of existing structures.

The historic nature of downtown South Berwick, containing a Historic District as well as several properties listed on the National Register of Historic Places, provides a template on which future development can be modeled. Further, these structures provide a means to explain the community's history and the role of downtown in that history. Walking tours, plaques and other explanatory methods can also serve to bring more visitors to the downtown and encourage visits of longer duration.

Scaling, massing, setbacks (including zero setbacks) and lot sizes derived from identified historic structures and others in the village area can provide indicators for future building requirements in the village area. Additionally, a balance between preservation of existing structures and using the influence of such structures to guide new construction can yield a harmonious blend of structures in downtown. When structures and site plans begin to deviate from adjacent uses, the nature of activity in downtown, particularly pedestrian traffic changes. In places where parking lots have become boundaries or scaling, massing and setbacks are inconsistent with adjacent uses, landscaping, sidewalks and buffers can reduce the perception these uses are barriers. Uses that include drive through services are often not implemented in a manner consistent with a walking village.

Revitalizing existing structures in a downtown can reinforce a positive perception that downtown is improving. Strategies for technical assistance, grant funding and tax incentives can be used to encourage private reinvestment in properties. A variety of approaches and funding sources may be appropriate given the diversity in a downtown. Workforce housing, economic development, small business development, historic preservation, transportation enhancement, health service provision and educational purposes could be used to explain and define potential rehabilitation projects. Attention should be also paid to applicable building codes to ensure they do not discourage rehabilitation.

6. Activities

Downtown South Berwick contains locations for public activities and events as well as potential recreation areas.

Public activities and events in the downtown area generate additional usage of the village center and strengthen the identity of the location. Cultural activities such as concerts and the arts not only can generate additional visits to the village center, but also can provide opportunities for residents to meet. Event space including room for festivals and performance spaces, both indoor and outdoor are key components of supporting the arts.

The proximity of the Salmon Falls River to downtown provides an opportunity for expanded recreational access. Recreational uses of parks and picnic areas bring additional visitors to the downtown area as well as increasing the amenities value for residents and employees in the area. Providing recreational opportunities in close proximity to downtown will strengthen the market for residential and rental housing uses in the surrounding area.

7. Uses

Traditionally downtowns contain a blend of civic, residential, commercial and industrial uses in close proximity. The specific distribution has changed fairly rapidly and regularly, particularly as some downtown uses became more marginal and transient. Business development, recruitment and retention programs, reinforcing traditional patterns of mixed use and retention of civic uses in the village can encourage downtown revitalization.

Undertaking a market analysis of the South Berwick trade area can assist in determining what goods and services may be productively and profitably sold in a the downtown environment. As consumer tastes and preferences have changed over time, certain retail niches have ceased to be competitive in a downtown environment. At the same time, the multiplier effect of locally based businesses (estimated by the National Main Street Center to be five times that of national chains) can provide a strong impetus to maintain a viable downtown retail district. Further, complementing a strategy of recruitment should be a retention plan. Working closely with existing businesses to ensure their continuing viability can be more cost effective and less time consuming than an extensive recruitment effort.

Downtown uses have traditionally been mixed, with the classic downtown block consisting of retail on the ground floor, office space above and residential units on the upper stories. This traditional format provides diversity into the downtown as well as a ready source of activity and consumers throughout the day. Specific targeting of certain segments of downtown for live-work activities can contribute to building revitalization and renewed economic activity.

Civic uses such as Town Offices and the Post Office generate regular activity in the downtown. Both of these uses exist in South Berwick. Further civic uses in the downtown, where feasible and appropriate can generate additional regular activity.

8. Organization

Sustaining and encouraging downtown revitalization is an on-going and incremental task. Some of the most successful models of downtown revitalization have used the National Trust for Historic Preservation's Main Street Approach. The Maine Downtown Center provides training and technical assistance to communities that demonstrate a willingness and ability to revitalize their downtowns, promotes and builds awareness about the importance of vital downtowns and serves as a clearinghouse/point of contact for information related to downtown development in Maine. Intensive technical services are provided for a selected group of communities, including Bath, Saco, Waterville,

Gardiner, Eastport and Norway. The Center competitively identifies communities for participation, based on the following criteria: (1) local funding commitment, (2) breadth of support, (3) existence of a vision and work plan for downtown revitalization, (4) existing capacity, and (5) the likelihood of demonstrable change. Nearby, in New Hampshire, Dover has participated in the New Hampshire Main Street Program for four years. More than 1633 communities in over 40 states use this program nationwide. This approach relies on a public-private partnership that moves beyond public improvement projects as a mechanism for downtown revitalization. The downtown development organization focuses on a four point approach of organization, promotion, design and economic restructuring. Within this framework, the track record of Main Street programs across the country have shown that the most effective downtown revitalization efforts rely on a the following eight key principles: comprehensive initiatives, incremental projects, self-help, public-private partnerships, identification and capitalization on existing assets, quality improvements, change orientation and action orientation.

G. NATURAL RESOURCES

1. Introduction

The Town's natural resources (soils, water and topography) provide wildlife (including endangered species) and fisheries habitat, recreational opportunities, drinking water supplies and scenic values. They are an essential part of South Berwick's rural character and established historical land use patterns which are still evident today.

Inappropriate development in environmentally sensitive areas could be costly to the entire town. For example: filling of wetlands or disrupting natural drainage patterns could increase chances of flooding or affect drinking water supplies.

Specifically, this chapter will:

a. describe South Berwick's critical natural and scenic resources;
b. assess whether these resources will be threatened by the impacts of future growth and development; and
c. assess the effectiveness of existing efforts to protect and preserve these resources.

2. Key Findings and Issues

South Berwick's topography is generally characterized by gently rolling hills, several small ponds, streams and wetlands bisected by the Great Works River. The southwestern portion of the Town is bounded by the Salmon Falls River.

Rough estimates from aerial photographs show that 70 percent to 80 percent of the Town is forested. Much of the open land is found within one to two miles of the Salmon Falls River and the Great Works River corridors. Other open areas are interspersed along roadways of the Town that lie near/within the heavily forested Mount Agamenticus region.

Depth to bedrock is perhaps of greatest concern in areas being considered for future growth and the extension of sewer and water lines. Depth to bedrock is a constraint in a number of potential growth areas surrounding the built up portion of the Town.

There are seven soil associations located in South Berwick. Many of South Berwick's soils have limitations for development.

Wetlands are one of the most critical natural resources. They often serve as aquifer recharge areas, for underground water supplies. They are critical wildlife and bird habitats serving as essential migratory and breeding areas for waterfowl, amphibians and fish. Wetlands are also an important part of nature's drainage system since they hold storm water. Areas that have experienced extensive filling of wetlands often face increased flooding problems. Areas with poorly drained and very poorly drained soils can be found throughout South Berwick. The largest concentration of poorly drained

soils is located just northeast of the village area and extends beyond Agamenticus Station.

South Berwick has uniquely intact natural resources. A wide variety of natural systems, from coastal to upland forest host extensive wildlife resources and recreational opportunities for people.

3. Public Opinion Survey and Community Vision Meeting Results

The 2003 Community Survey showed the majority of residents surveyed indicated the loss of open spaces, threats to water supply and loss of rural character are serious challenges facing South Berwick. Those responding to the survey felt it was of some importance to spend tax dollars for access to ponds, woodlands, parks, passive outdoor recreation areas, and hiking trails. In fact, many respondents indicated they would support the expenditure of town funds for the acquisition of open space.

The 2003 Community Vision meeting identified several key issues relative to natural resources. Many participants felt that the preservation of open space is a critical issue facing South Berwick. The protection of wetlands, establishment of wildlife corridors, protection and/or establishment of scenic views, and the protection of agricultural lands were all identified as serious issues for the future.

4. A Summary of Critical Natural Resources

South Berwick's major natural resources are discussed below. There is also further discussion of farm and forest land in the *Agricultural and Forest Resources* chapter. Water resources are covered in Section H.

a. Topography and Geology

South Berwick's topography is generally characterized by gently rolling hills, several small ponds, streams and wetlands bisected by the Great Works River. The southwestern portion of the Town is bounded by the Salmon Falls River.

The Surficial Geologic Map of Maine, published by the Maine Geological Survey in 1985, reveals the Town's topography is a result of events that occurred during the last ice age at a time when ancient oceans extended over parts of Southern Maine and glaciers scraped, scoured and coated other areas with glacial tills, sands and clays. A large part of the southwestern section of the Town consists primarily of glacio-marine deposits accumulated on lowland areas submerged in the ancient ocean. These deposits consist of silt, sand, clay and minor amounts of gravel. The topography is generally flat to gently sloping, except where crossed by streams. Glacial drumlins, Powderhouse Hill and Cummings Hill are located in this area. The steepest slopes (over 15 percent) occur on Powderhouse & Cummings Hills, south of Hamilton Brook on the Salmon Falls River and the western side of Rocky Hills along Route 236.

The north and eastern half of the Town consist of glacial till deposited directly by glacial ice. Glacial till is a heterogeneous mixture of sand, silt, clay and stones that form a blanket deposit conforming to the underlying bedrock. In the Tatnic Hills, this till also includes large boulders known as glacial eradicts. These sections of South Berwick tend to have steeper slopes and contain more streams and pocket wetlands than the areas covered by the ancient oceans. The steepest slopes occur in association with Welch, Brown and Spring Hills in the northern part of South Berwick, around Warren Pond and associated with brook drainages from Tatnic. Orris' Falls is a small brook which drops 100 feet in elevation over a 500 foot run. Chick's Brook also has a gorge type feature. Both have been permanently conserved as open space as have the Spring Hill Cliffs and the Balancing Rock (a unique glacial eradict).

b. Depth to Bedrock

Areas with shallow depths to bedrock in South Berwick are characterized by Lyman soils. These soils, which were formed in a thin layer of glacial till, are on bedrock controlled landforms that were modified by glacial action. Lyman soils characteristically have depths to bedrock that range from ten to twenty inches.

Depth to bedrock is perhaps of greatest concern in areas being considered for future growth and the extension of sewer and water lines. Depth to bedrock is a constraint in a number of potential growth areas surrounding the built up portion of the Town. Areas located along Route 236 and Brattle Street near Rocky Gorge, Fifes Lane, Old South Road and Witchtrot Road, all to the south of the village, consist of the shallow Lyman soils. There appear to be some areas along Vine Street, Brattle Street – after it bends southward, Route 236 – south of the Great Works River, where depth to bedrock is not a constraint. Areas directly to the north and west of the village, along Route 4 and Agamenticus Road appear to be less plagued by shallow soils.

Generally, areas directly associated with the Great Works River and to its west have deeper soils. Easterly of the Great Works River and to its north, glacial action has scraped to or near bedrock. From Rocky Hills through the three hills of Mt. Agamenticus and into Tatnic, soils are typically shallow and bony with ledge outcrops, steep slopes and large boulders.

c. Land Cover

The Town's topography and geologic history have influenced the existing land cover. Prior to settlement in the 17th century, Native Americans used slash and burn technology to create garden areas. When the settlers arrived, the existing forest vegetation was cleared in flatter areas adjacent to the Salmon Falls River and the lower Great Works River. Roadways were built following paths of least resistance. During the early industrial revolution most of South Berwick had been cleared to produce sheep/wool for local woolen mills. With the opening of the west to settlement and agriculture, many farms were abandoned or consolidated. Growth of urbanized areas

with better paying jobs at mills left fields to successional growth and the regeneration of a second growth forest. (More in the Agriculture and Forestry section)

Today, rough estimates from aerial photographs show that 70 percent to 80 percent of the Town is forested. Much of the open land is found within one to two miles of the Salmon Falls River and the Great Works River corridors. Other open areas are interspersed along roadways of the Town that lies near/within the Mount Agamenticus region, which is heavily forested.

d. Soils

Since soils can have an impact on most land use activities, it is important to understand their characteristics, capacity and limitations. Many of South Berwick's soils have limitations for development. Often these limitations can be overcome through special planning, design, construction and/or maintenance. In other cases, the soils are entirely unsuitable for particular uses.

The Natural Resource Conservation Service has published a Soil Survey for York County, which includes a map of the different soils and information on their characteristics. While this map displays the predominant soil type for an area, there may be pockets of other soils within that area. Soil survey information is useful for Town-wide planning. However, a high intensity soil survey is necessary to gather precise information needed for individual site planning. Map G.0 shows poorly drained and very poorly drained soils for South Berwick.

According to the Soil Survey, there are seven soil associations located in South Berwick. Associations are groups of different soil types that usually occur together. Each association has major and minor soils within it. For example, the Adams-Colton Association has six minor soils. The following table describes each of South Berwick's seven associations.

Table NR.1.
Soils Associations and Characteristics

Soil Association Description	Location	Limitations
Adams-Colton Association: Deep nearly level to steep excessively drained soils formed in materials deposited by glacial meltwater.	Outwash plains, kane terraces and eskers (ridges). Village area.	Adams and Colton soils have slight to moderate limitations for on-site sewage disposal; groundwater contamination can be a hazard. Slope is the major limitation for septic systems and construction.
Naumburg-Croghan Association: Deep, nearly level and gently sloping, poorly drained to moderately well drained soils formed in material deposited by glacial meltwater.	Outwash plains, Northwestern and extreme southern portions of Town.	Naumburg soils are somewhat poorly drained to poorly drained. Croghan soils are moderately well drained. Limitations are wetness due to seasonal high water tables and droughtiness in summer due to rapid permeability. Naumburg soils are generally not suitable for on-site sewage disposal or construction.
Marlow-Brayton-Peru Association: Deep nearly level to moderately steep, well drained to poorly drained soils formed in moderately coarse textured, compact glacial till.	Drumlins (low elongated hill) and glaciated uplands. An area just north of the village and central and southern portions of Town.	Slow permeability in substratum and a seasonal perched water table are major limitations for most uses. Slope is limitation in moderately step areas.
Hermon-Lyman Association: Shallow and deep, gently sloping to very steep, well drained to somewhat excessively drained soils formed in friable glacial till.	Plains, hills and ridges. Large portion of central and eastern South Berwick.	Poorly suited for on-site septic sewage disposal and construction are slope, rapid permeability and shallow depth to bedrock in Lyman soils. Slope is a limitation in steeper areas. Erosion on steeper areas can be a hazard.
Lyman-Rock Outcrop-Sebago Association: Shallow, gently sloping to very steep somewhat excessively drained soils formed in shallow glacial till; areas of bedrock exposures; and deep, level, very poorly drained soils formed in organic material.	Lyman and rock outcrops on hills and ridges; Sebago soils in depressions. Tatnic and Rocky Hills section of Town.	Poorly suited for on-site septic systems and construction. Limitations are bedrock exposures, shallow soil depth of the Lyman soils, and the high water table and low strength of Sebago soils.
Scantic-Raynham-Buxton Association: Deep, nearly level to moderately steep and hilly, poorly drained to moderately well drained soils formed in marine and lacustrine sediments.	Marine Plains and lake plains. Area surrounding the village and small section in northern part of Town.	Slope, the high water table in the Scantic and Raynham soils, and slow permeability in the Scantic and Buxton soils are the main limitations for most uses.
Lyman-Rock Outcrop-Scantic Association: Shallow, gently sloping to very steep, somewhat excessively drained soils formed in glacial till; areas of bedrock exposures; and deep, nearly level poorly drained soils formed in marine and lacustrine sediments.	Lyman soils and Rock Outcrop on ridges and hills; Scantic on marine plains.	The major soils are not suitable for on-site septic systems or construction. Limitations are bedrock exposures, droughtiness, shallow depth to bedrock in the Lyman soils, and high water table in Scantic soils. Slope is a limitation in steeper areas.

Source: Soil Survey of York County, Maine, USDA

Soil Suitability for Development

Various soil characteristics, such as depth to water table, depth to bedrock, flooding potential and erosion potential can present serious limitations to development. For example, roads, utilities and cellar foundations are difficult and expensive to build when bedrock is present.
Perhaps one of the most limiting characteristics is depth to water table. Wet, very poorly drained soils where the water table is at or within nine inches of the surface for some part of the year are inherently unusable for septic system use and house building. Poorly drained soils (9-18 inches depth to water table) also place severe limits on the use of the land. Frequent fluctuations in water level as well as frost heaving can be damaging to buildings, roads, and the proper functioning of septic systems. These limitations can sometimes be overcome through special design and maintenance.

Moderately well drained soils (18-30 inches to water table) have less severe limitations on land uses, and deep, well drained soils present few problems. The latter have a depth greater than 30 inches to water table.

Areas with poorly drained and very poorly drained soils have been mapped for South Berwick. Poorly drained soils include Brayton, Naumburg, Raynham, Scantic, and Rumney soils. Very poorly drained soils include Biddeford, Saco, Waskish, Vassalboro, Sebago and Chocorua.

Areas with poorly drained and very poorly drained soils can be found throughout South Berwick. The largest concentration of poorly drained soils in located just northeast of the village area and extends beyond Agamenticus Station.

e. Wetlands

Wetlands are one of the most critical natural resources. They often serve as aquifer recharge areas for underground water supplies. They are critical wildlife and bird habitats serving as essential migratory and breeding areas for waterfowl, amphibians and fish. Wetlands are also an important part of nature's drainage system since they hold storm water. Areas that have experienced extensive filling of wetlands often face increased flooding problems.

The US Fish & Wildlife Service specifically defines wetlands as follows: “Wetlands are lands transitional between terrestrial and aquatic systems where water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: 1) at least periodically, the land support predominately hydrophytes (wetland vegetation); 2) the substrate is predominately hydric (waterlogged) soil; and 3) the substrate is non soil and is saturated with water or covered by shallow water at some time during the

growing season of each year." (Cowardin, et al. 1979) The Army Corps. of Engineers has also defined wetlands in terms of the above three parameters.

Wetland Classification

Wetlands can be classified as coastal (brackish or saltwater wetlands) or inland fresh water wetlands. The National Wetlands Inventory further classifies wetlands into five ecological systems:

Marine System- consists of the open ocean and its associated coastline. It is mostly a deep water habitat system, with marine wetlands limited to intertidal areas like beaches and rocky shores.

Estuarine System-includes coastal wetlands like salt and brackish tidal marshes, and intertidal flats, as well as deep water bays, sounds and coastal rivers.

Riverine System- is limited to freshwater river and stream channels and is mainly a deep water habitat system.

Lacustrine System- is also a deep-water dominated system, but includes standing water bodies like lakes, reservoirs and deep ponds.

Palustrine System- encompasses the vast majority of inland marshes, bogs and swamps and does not include any deep water habitat. Most of the wetlands in South Berwick are included in this system, as are many vernal pools.

Role of Wetlands

In many areas, wetlands were considered breeding habitat for mosquitoes and areas that needed to be drained or filled for agricultural purposes or to create developable land. More recently, there has been a growing awareness of the value of wetlands. In a recent study of impacts of development in Southern Maine, the State Planning Office examined the functions of wetlands and implications of the loss of these areas. The State study identified the following features and their attributes:

1. Ground water recharge. Wetlands may serve to replenish and cleanse aquifers which the Town uses for water supply. The wetland complexes around the base of Powderhouse Hill and Willow Drive and the wetland complexes at the outlet to Knight's Pond and Pond Road Both are in the vicinity of SBWD well-heads.
2. Ground water discharge. Ground water may discharge into wetlands, providing public surface water supply, wildlife habitat and a means of maintaining lake and river quality. Knight's Pond is almost exclusively a spring fed pond.
3. Flood flow alteration. Wetlands serve as temporary storage areas during high water flows, thus reducing peak flows and potentially damaging floods. Sphagnum and peat wetlands have a high capacity for water retention. These

are found around Cox's Pond, White's Marsh, in the flood plain area of Route 91 and many wetlands of the eastern side of Town with in the greater Mount Agamenticus area and along wetland areas adjacent to the Great Works River.

4. Sediment and toxicant retention. In developed areas, wetlands can retain and stabilize sediments and toxic materials. The wetland at the corner of Route 236 and Old South Road helps retain run off from Route 236.
5. Nutrient retention and removal. Wetlands retain or transform inorganic phosphorus and/or nitrogen into their organic form and may save downstream lakes and ponds from eutrophication.
6. Productivity export. Wetlands flush out dead plant and animal life, thereby providing nutrients for a new generation of plant and animal life.
7. Aquatic diversity. Certain wetlands provide habitat that includes breeding grounds and nurseries for fish. Hooper's Swamp, White's Marsh, Cox's Pond and the outlet to Knight's Pond.
8. Wildlife diversity and abundance. Wetlands serve as habitat and a food source for birds, deer and other animals. This is especially true for vernal pools found throughout the greater Mount Agamenticus region and wetlands associated with open water. Large isolated wetlands provide nesting sites for migratory water fowl and wading birds. These are found in the extensive wetlands above Orris' Falls (the Gorge) in the Tatnic Region and at York Pond.
9. Uniqueness / Exemplary Natural Communities. A number of rare plant and animal species can be found in wetlands. Approximately 43 percent of the 230 rare plants that occur in Maine are found exclusively in wetlands. In South Berwick, two globally rare species of dragonflies and state endangered/threatened species; including two turtle species, as well as other reptile and amphibian specie, and two natural plant communities, are found with in the greater Mount. Agamenticus region. (See Beginning with Habitat Maps and background information in the Planning Office.)
10. Aesthetics. Wetlands provide scenic and recreational values for residents. Fishing and hunting along open water wetlands is still a recreational opportunity. Wildlife and bird watching are passive recreational pursuits enjoyed by residents.

It can and should be assumed that the larger the wetland body, the greater it's capacity to perform one or more of the above functions.

Classification and Location of Wetlands

Wetlands can be inventoried and classified in a variety of ways – by soil type, vegetation and size to name a few. Wetlands have been mapped according to "poorly drained" and "very poorly drained" soils, based on the medium intensity soil survey prepared by the U. S. Department of Agriculture, Natural Resource Conservation Service. An overlay of these soils is on file in the Town office.

The Maine Geological Survey of the Maine Department of Conservation has mapped 11 wetlands of 10 acres or more on maps of the 1:50,000 scale. The wetlands were

identified based on aerial photographs at a scale of 1:40,000 flown in 1980-81. The wetland boundaries, which are shown on Map G.2, represent the limits of the wetlands at the time the photographs were taken; actual areas of the wetlands will vary seasonally. The characteristics of these wetlands are shown in Tables NR-2 and NR-3.

The National Wetlands Inventory, prepared by the U S Fish & Wildlife Service, goes into greater detail. Wetlands are shown by USGS Topographical sheet; there are two "15 minute" and two "7.5 minute" maps for South Berwick. These maps were prepared in 1977 by stereoscopic analysis of high altitude aerial photographs. Again, the maps reflect the year and season they were taken. The US Fish & Wildlife service acknowledges that there is a margin of error inherent in the use of aerial photographs. The composite map for South Berwick is on file in the Town Offices.

More detailed wetlands studies have been undertaken for various portions of South Berwick. For example the Greater Mount Agamenticus Study (IF&W) included a wetland study, and a detailed wetlands inventory was conducted for the Powderhouse Hill area. *(On file in Planning Office)*

The State Office of GIS (Geographic Information Systems) has digitized maps of all wetlands in the state and allows for identification by size. The State Planning Office (SPO) Beginning with Habitat Program has ranked all town wetlands on the basis of significance to wildlife, fisheries and water quality (also digitized) and offers this data on the SPO website. The advantage of this data is that it is updated periodically as studies are completed, instead of being static to one date. Various data layers are available and can be overlaid in a variety of configurations. These maps are not a replacement for individual wetland surveys, but can direct resource management efforts to areas of highest probability for occurrences.

An important aspect in wetland identification and protection is the concept of a "buffer zone". The State Planning Office, as well as a number of wildlife and botany experts, suggests a 300-foot buffer zone should be established around high value wetlands to protect wildlife habitat such as rare plants, and negate the effects of subsurface sewage disposal on wetlands. While a 300 foot regulatory buffer zone raises the local political question of "taking without compensation", a smaller buffer area, or use of easements could also achieve a degree of protection.

The wetlands designated by IF&W for the last comprehensive plan included only those wetlands associated with open water bodies. Many wetlands providing essential habitat for endangered species are not included.

The Maine Department of Inland Fisheries and Wildlife has produced a book titled "Best Management Practices for Vernal Pools". They have also produced a series of maps and an instructional book for the "Beginning with Habitat" program. (*On file in Planning Office)* These maps indicate endangered species habitat (plant and animal) as well as

other data. These sources are also digitized and are likely to be regularly updated as more intensive studies and research is completed.

Table NR.2.
Summary of Wetlands Information

Wetland Number	Maine Inland Fisheries and Wildlife Wetland Type	National Wetlands Inventory Classification	Soil Type
Southern Half of Town			
19	--	SS, OW	Naumburg Sand Raynham Silt Loam
20	Shrub Swamp	SS/EM, SS	Biddeford Mucky Peat Chocorua Peat
21	--	FO --	Sebago Peat Chocorua Peat
22	--	FO	Sebago Peat
23	--	FO	Vassalboro Peat
24	--	FO	Vassalboro Peat
25	--	SS/EM	Sebago Peat
26	--	FO	Biddeford Mucky Peat
27	--	FO	Chocorua Peat
29	Shrub Swamp	FO/SS, FO	Sebago Peat Lyman-Rock Outcrop complex, 8-15% slopes
Northern Half of Town			
27	--	--	Sebago Peat
28	--	FO	Raynham Silt Loam
29	Shrub Swamp	SS/EM, FO/SS	Sebago Peat Chocorua Peat
30	--	FO/SS	Sebago Peat
31	--	FO, FO/SS	Chocorua Peat
34	Inland Fresh Meadow	SS/EM	Vassalboro Peat, ponded

Source: Maine Geological Survey

Key
EM – Emergent
FO – Forested
OW – Open Water
SS – Scrub/Shrub

Table NR.3.
Key to Symbols used in National Wetland Inventory: Map G2

Systems	Subsystems	Classes
E - Estuarine	1 - Subtidal	AB - Aquatic Bed
	2 - Intertidal	BB - Beach/Bar
M - Marine	1 - Subtidal	EM - Emergent
	2 - Intertidal	FL - Flat
L - Lacustrine	1 - Limnetic	FO - Forested
	2 - Littoral	ML - Moss/Lichen
P - Palustrine	None	OW - Open Water
R - Riverine	1 - Tidal	RB - Rocky Bottom
	2 - Lower Perennial	RF - Reef
	3 - Upper Perinnial	RS - Rocky Shore
	4 - Intermittent	SB - Streambed
	5 - Unknown Perennial	UB - Unconsolidated Bottom

Wetland Regulations

The Mandatory Shoreland Act, Title 38 MRSA Sections 435-448, requires that municipalities regulate the area of land around wetlands. Currently, only high value wetlands of 10 or more acres are offered Resource Protection Zoning. This provides a 250 foot setback for dwellings and septic systems. Other land uses such as parking lots and clearing of vegetation is reviewed at time of subdivision within a buffer of 250 feet. Wetlands under two acres are given a 25 foot setback. Currently, the Department of Environmental Protection (DEP) allows up to 10,000 feet to be filled in wetlands with a permit by rule (advance notification to DEP). They do not recognize Town data or rules in their permit system. Wetlands of 10 acres or more, which are not part of a great pond or river, are protected by the state's Natural Resource Protection Act, Title 38 MRSA Sections 490-A through 480-S. The Town of South Berwick now regulates land use activities within 250 feet of wetlands of 2 acres or more in size.

Future Studies

The Wells Reserve has received an Outdoor Heritage Fund Grant to perform an aerial infrared survey of the Greater Mount Agamenticus area. This fly-over will include most of the eastern half and northern sections of South Berwick. The details from this fly-over will indicate wetland boundaries and size with greater accuracy. However, this should not be a replacement for identifying those boundaries on the ground.

5. Assessment of Threats to South Berwick's Natural and Scenic Resources

South Berwick has uniquely intact natural resources. A wide variety of natural ecosystems exist. The coastal to upland forests host extensive wildlife resources and

recreational opportunities for people. The capacity of these systems depends upon their being buffered from the effects of development. This is particularly the case in those areas not protected by shoreland zoning or designated by the state as *essential habitat*. A poorly planned subdivision development could disrupt views from an adjoining property or fragment an important wildlife area. The Greater Mount Agamenticus Region's natural resources have been the subject of a 2003 Site Conservation Planning (The Nature Conservancy) process which has identified core conservation values, then assessed and rated threats to resources found here. It has also recommended a variety of solutions to alleviating those threats. The State Planning Office Beginning with Habitat Program identifies rare natural communities of plant species and endangered species habitat for the Town of South Berwick. The same strategies offered within the Mt A Site Conservation Plan could be extended to resources town wide. As land values increase, increasing pressure is placed on open space lands for development, especially along rivers and water bodies.

6. Assessment of Existing Efforts to Protect and Preserve South Berwick's Natural and Scenic Resources

South Berwick's shoreland zoning ordinance meets all state requirements. This means that some protection is offered to resources along the shorelines of ponds, rivers and streams. The town may want to consider other measures to protect natural resources. These could include larger minimum lot sizes and stricter setback standards in areas where high-value natural resources are present. In addition, specific measures to minimize phosphorus loading in watersheds could be considered. The acquisition of land or easements could be used to preserve specific valuable resources. It is possible to make minor changes in the location of lots in a subdivision to minimize the disruption or views from a neighboring property or public road.

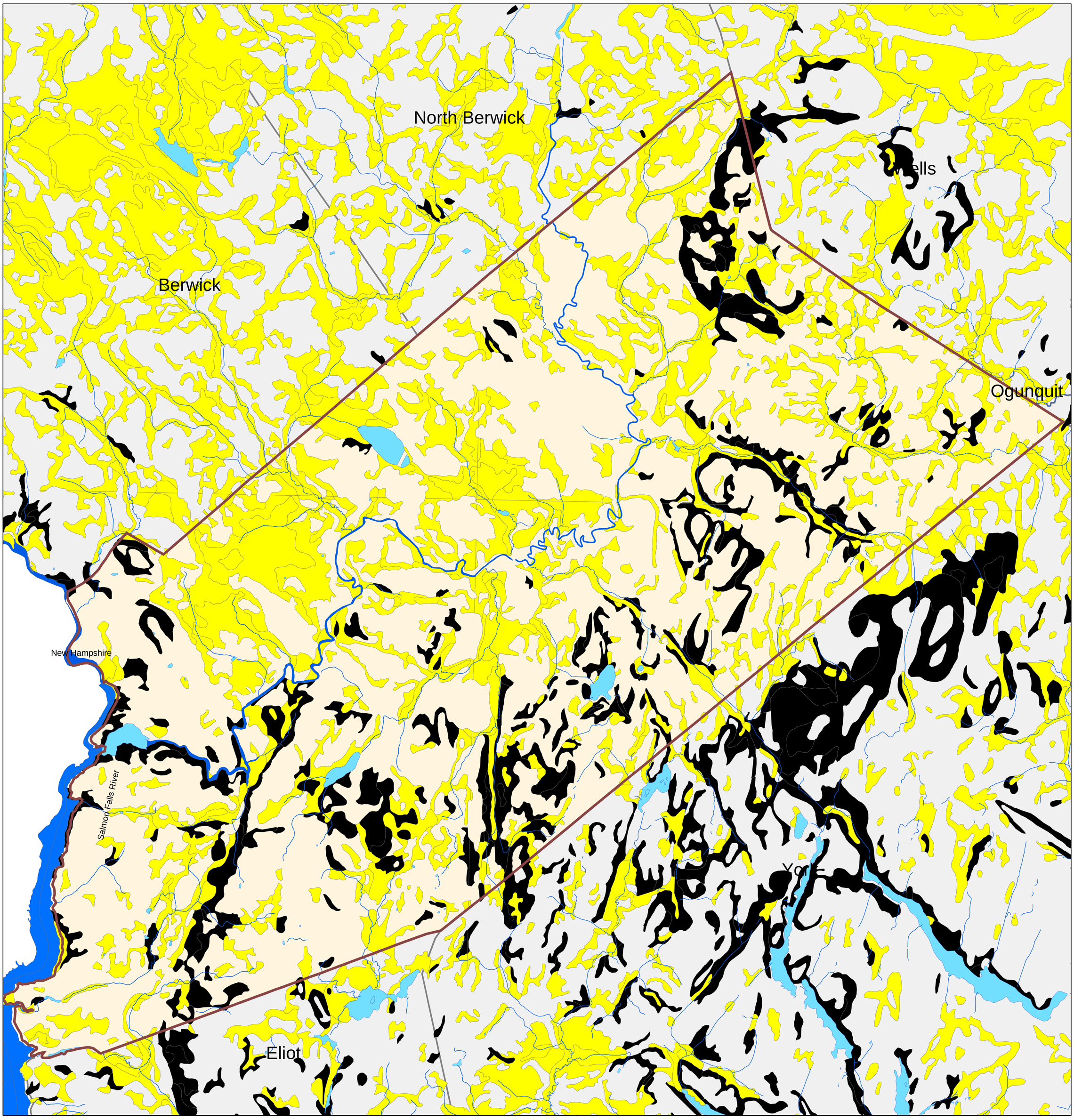
7. Regional Issues

The Greater Mount Agamenticus Area and Salmon Falls River corridor are two areas where regional efforts will have a greater capacity to protect natural resource values. Regional issues include land uses within these areas and management of recreation of these resources. Regional approaches to watershed issues which provide for land-use consistency over town lines will have a greater positive impact on protecting water quality and wildlife habitat which provide recreational opportunities and secure water quality and quantity for future town growth.

MAPS

G.0 Soils
G.1 Development Constraints
G.3 Rare Plant and Animal Habitat and Locations

SOUTH BERWICK
SOILS



Legend

- Stream
- River
- Pond
- Hydric Soils
- Steep Slopes
- Public Roads
- South Berwick Town Border
- Surrounding Town

F

1 0.5 0 1 Miles

Additional Sources: Maine Department of Inland Fisheries and Wildlife, Maine Office of Geographic Information Systems, FEMA

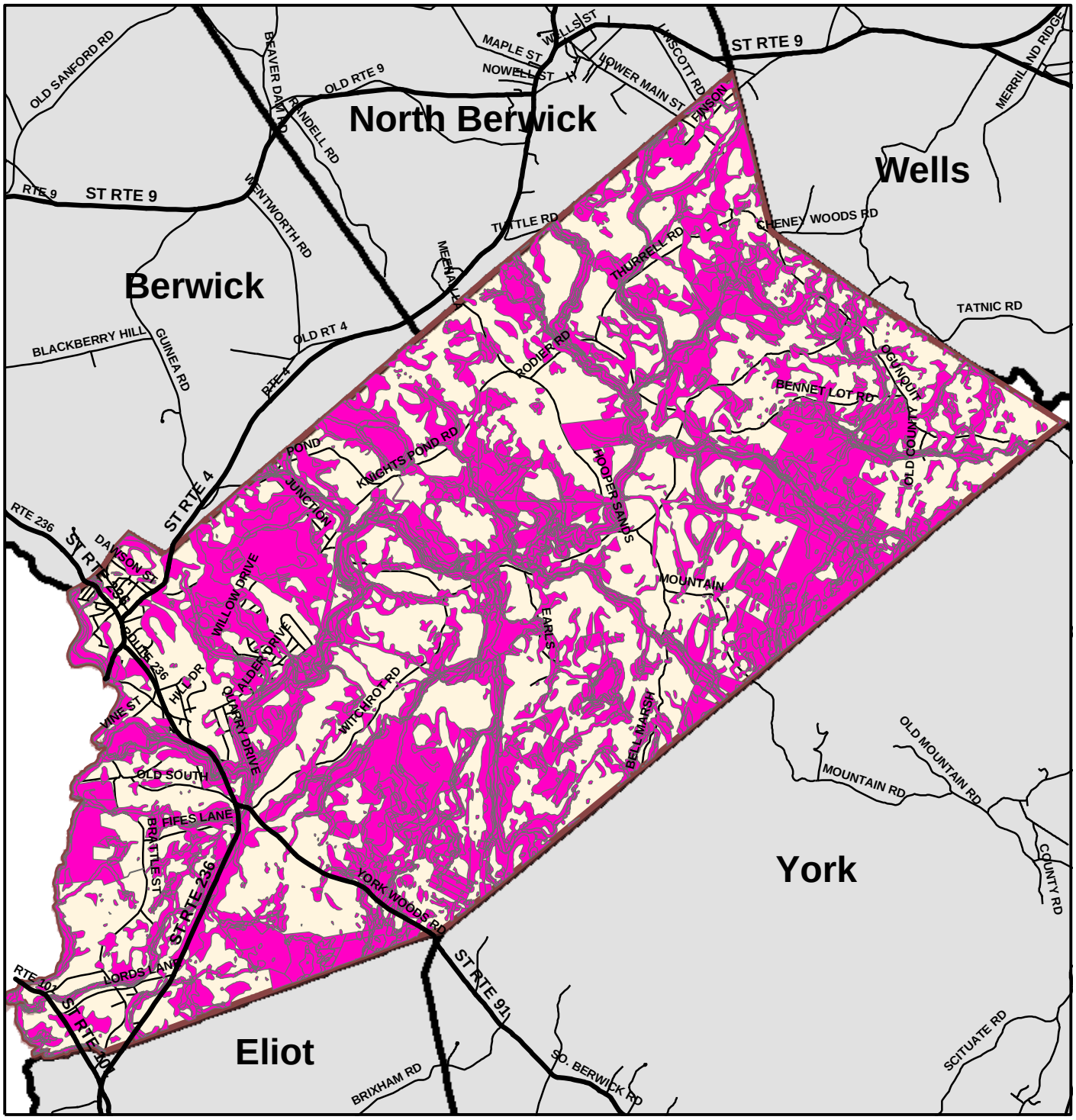
Map Created on March 11, 2003

Produced by the Southern Maine Regional Planning Commission. For planning purposes only. Roads, waterbodies & streams courtesy of Maine Office of GIS.

THE SMRPC REGION

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

SOUTH BERWICK
DEVELOPMENT CONSTRAINTS



Legend

- Roads
- Development Constraints*
- South Berwick Town Border
- Surrounding Towns

*Development constraints include the following: streams, stream buffers (75 ft.), rivers, river buffers (250 ft.), ponds, pond buffers (250 ft.), wetlands, steep slopes, hydric soils, FEMA 100-year floodplain, and conservation lands

N

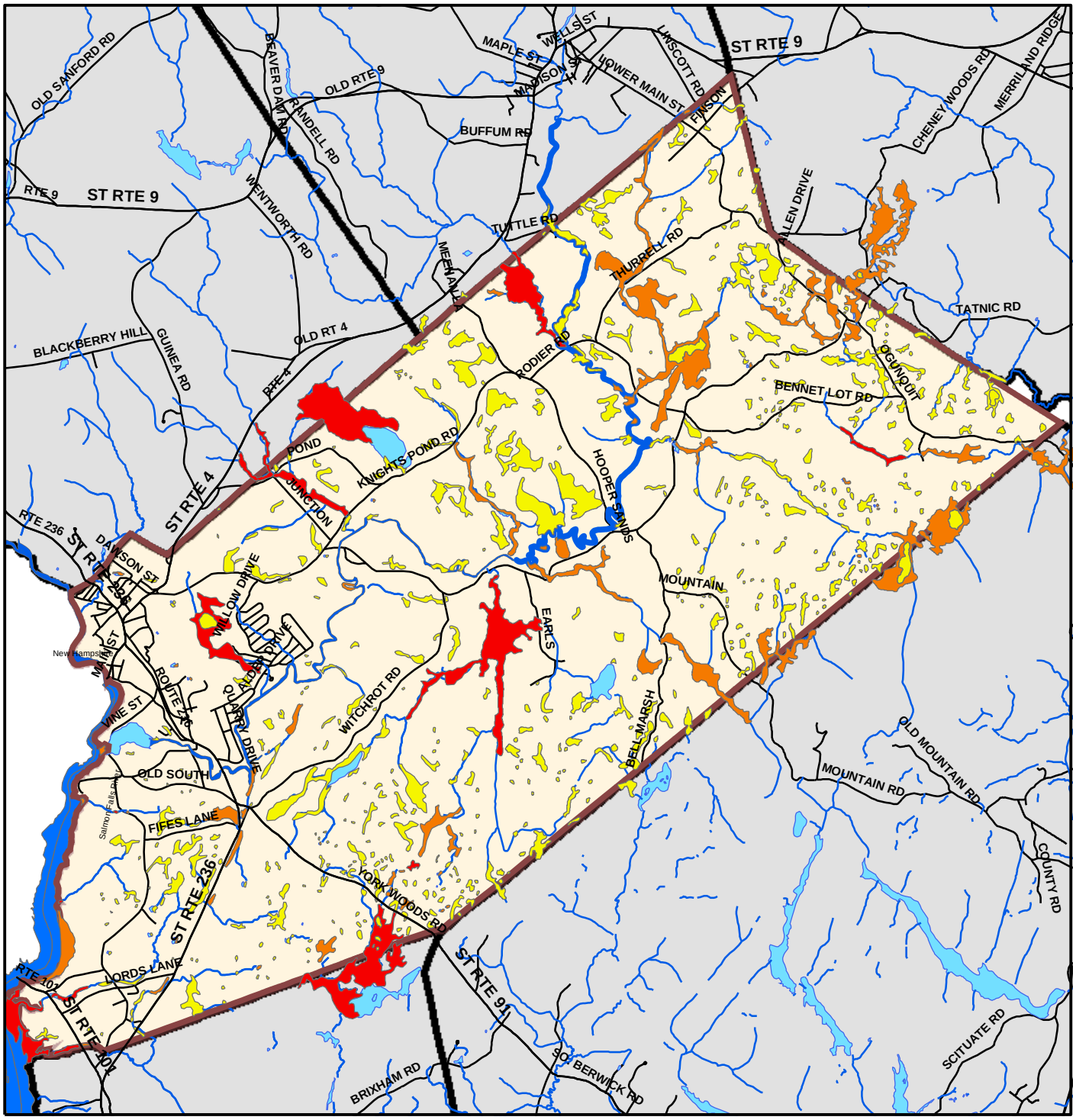
1 0.5 0 1 Miles

Additional Sources: Maine Department of Inland Fisheries and Wildlife, Maine Office of Geographic Information Systems

Map Created on March 11, 2003

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

SOUTH BERWICK
SPO RATED WETLANDS



Legend

- Public Roads
- Stream
- River
- Pond
- South Berwick Town Border
- Surrounding Towns

Rated Wetlands

- Low Rated Wetlands
- Moderate Rated Wetlands
- High Rated Wetlands

N

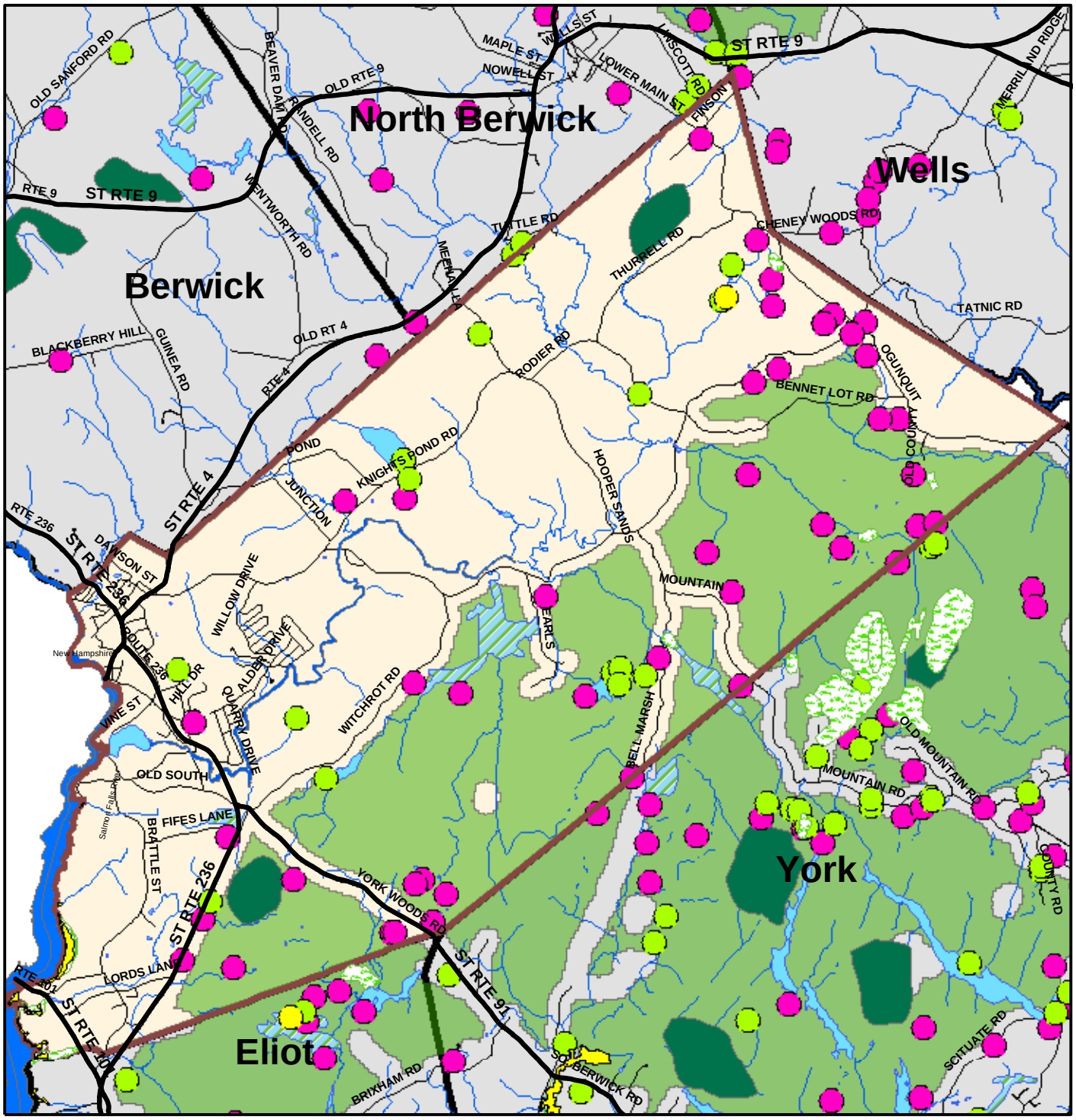
1 0.5 0 1 Miles

Additional Sources: Maine Department of Inland Fisheries and Wildlife, Maine Office of Geographic Information Systems, FEMA

Map Created on March 11, 2003

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

SOUTH BERWICK
RARE PLANT AND ANIMAL HABITAT AND LOCATIONS



Legend

- Rare Plant Location
- Rare Animal Location
- Wading Bird Colony
- Roads
- Stream
- Pond
- River
- Rare Plant Habitat
- Waterfowl and Wading Bird Habitat
- Coastal Waterfowl and Wading Bird Habitat
- Deer Wintering Area
- Large Blocks of Unfragmented Habitat
- South Berwick Town Border
- Surrounding Towns

N

1 0.5 0 1 Miles

Additional Sources: Maine Department of Inland Fisheries and Wildlife, Maine Office of Geographic Information Systems

Map Created on March 11, 2003

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

H. WATER RESOURCES

1. Purpose

This section presents an overview of South Berwick's water resources. An understanding of water resources is important as they provide essential values such as; drinking water, recreation, wildlife habitat and shape the scenic and historic perspective of our town. The integrity of this resource to provide these values is often taken for granted by the public until it has been threatened or damaged by some event. This plan provides background information to allow planning to prevent future damage, mitigate threats and recognize past problems which threaten these values.

2. Key Findings and Issues

South Berwick has a wide variety of water resources including rivers and ponds, wetlands and brooks and sand /gravel and bedrock aquifers. Though sufficient for current needs of the community, their continued ability to support their current functions will require monitoring and protection as growth continues within the town.

3. Public Opinion Survey and Community Vision Meeting Results

The majority of those surveyed indicated that threats to water supply are serious challenges facing South Berwick in the next five years. Many of those participating in the Community Vision meeting identified protection of wetlands, water resources and public access to rivers and ponds as important challenges facing South Berwick.

4. Surface water resources

The Town's surface water resources include two rivers, five ponds and numerous brooks, streams and wetlands. Waterways will be discussed here and wetlands are discussed in the Natural Resources Section. Map H.1 Water Features shows the significant surface water resources of South Berwick. Areas designated by FEMA in the 100 year floodplain are shown in map H.2.

The Salmon Falls River forms the southwesterly boundary between South Berwick and the State of New Hampshire. It is the Town's link environmentally and historically with the Atlantic Ocean. At it's confluence with the Cocheco River, it becomes the Piscataqua River, which in turn flows past Portsmouth and into the Atlantic. The water of the Salmon Falls River is tidal up to the Route 4 Rollinsford/ South Berwick bridge.

Most of South Berwick lies within the Salmon Falls River watershed. A portion of the northeasterly corner of the Town lies within the Ogunquit River watershed, and a portion of the easterly side of town lies in the York River watershed through two sub-shed systems; Belle Marsh and York Pond.

The Great Works River, Driscoll Brook, Hamilton Brook, Lord's Brook, Quamphegan Brook and Shorey's Brook all drain directly into the Salmon Falls River. The Great Works River watershed, which is a sub-watershed of the Salmon Falls River, has a total drainage area of 86 square miles, of which about 40 are in South Berwick. Tributaries of the Great Works River in South Berwick are: Boyd Brook, Chick's Brook, Hussey Brook, Hooper's Brook, Lover's Brook, White Marsh Brook, Knight's Brook and numerous other unnamed streams.

a. Water Quality of Waterways

Most of South Berwick's waterways currently meet State water quality standards. The water quality classification system allows the State to manage its surface water so as to protect the quality of those waters and, where water quality standards are not being achieved, to enhance water quality. Each classification designates the minimum level of water quality which the State intends for a waterway.

The Salmon Falls River is now classified as SC below tide water and C above tide water. Tide water areas are closed to shellfish harvesting. In 1999, the Salmon Falls River Study performed by MEDEP for the EPA found 7 miles of the River as it flowed through South Berwick were in non-compliance with their SB & B water quality rating. The substandard rating was a combination of point and non-point source effects. Point sources, including waste water treatment facilities upstream add nutrients to the river which when, combined with water draw downs for drinking water and irrigation upstream (reducing flow rates) significantly impact water quality. Impoundments (small hydro power dams) along the river reduce flow rates more causing dramatic oxygen depletion in the impoundments behind these dams during summer months. In 1995, the South Berwick Sewer District completed a major plant upgrade to tertiary treatment. This study also found the Great Works River to be the largest source of non-point source nutrient loading into the affected portion of the Salmon Falls River.

The river classification system should be viewed as a hierarchy of risk, more than one of use or quality - the risk being the possibility of a breakdown of the ecosystem and loss of use due to either natural or human-caused events. Ecosystems that are more natural in their structure and function can be expected to be more resilient to a new stress and to show more rapid recovery. Finally, Classes C and SC have the least restrictions on use and the lowest (but not low) water quality criteria. Classes C and SC waters are still good quality, but the margin for error before significant degradation might occur in these waters in the event of an additional stress being introduced (such as a spill or a drought) is the least. *(From MEDEP website – stream classifications)*

The estuary portion of the Salmon Falls River is monitored by the Eliot Conservation Commission and the Me Dept. of Marine Resources in an effort to reopen recreational shellfisheries in Eliot. This was a joint effort with Marshwood High School, but due to a lack of faculty advisor, has been discontinued within the school.

The Great Works River and most of its tributaries meet the class B designation. Only Lover's Brook is below the water quality classification, particularly with regard to the level of dissolved oxygen. Class B is the third highest classification for fresh water. Class B waters should be suitable for drinking water supply after treatment, fishing and recreation, some industrial processes and hydroelectric power generation, and as a habitat for fish and other aquatic life. The Great Works River serves as a discharge point for North Berwick waste water (during times of high flowage) and has two private overboard discharge septic systems in South Berwick. Current efforts are underway to provide sewer district services to those discharges.

The Great Works River is currently the subject of a volunteer monitoring program run by the Great Works River Watershed Coalition. This coalition has mapped non-point sources of nutrient loading into the Great Works River throughout the watershed (report dated July, 2002). The River is being monitored for dissolved oxygen, fecal coliform bacteria and some phosphorous testing. This effort is assisted by Noble High School.

Although not all streams in South Berwick have been inventoried by the Maine Department of Inland Fisheries and Wildlife (MDIF&W), many support native brook trout fisheries. The main stem of the Great Works River is stocked annually by the MDIF&W with both brook and brown trout. Brook trout habitat is vulnerable to a host of land-based activities, which often lead to a loss of riparian habitat. MDIF&W recommends that special protections be considered for these habitats when reviewing proposed "development" projects; 100 foot undisturbed buffers along both sides of any stream or stream associated wetlands. Buffers should be measured from the upland edge of the stream associated wetland. Protection of riparian areas diminishes erosion/sedimentation problems; reduces thermal impacts; maintains water quality; and supplies leaf litter/woody debris (energy and habitat) for the system. Road and stream crossings should be designed for their ability to not impede fish passage as required by the Natural Resource Protection Act. Any public access program or initiative which does not allow access to the general public (limits access to town residents only) would jeopardize the existing MDIF&W stocking and management programs.

Ponds

South Berwick's five ponds all lie within the Great Works River watershed. Table H.1. contains information on the physical characteristics and vulnerability of these water bodies. The Maine Department of Environmental Protection has identified the Town's ponds as extremely or highly vulnerable. This means that none of these ponds is very tolerant of extensive development, such as building or road construction which might increase phosphorous levels and reduce overall water quality.

Table H.1
Ponds and water quality

Pond Name	Surface Area acres	Drainage Area Sq. acres	Max. Depth feet	Mean Depth feet	Flushing Rate	Vulnerability *
Cox Pond	20.0	568	16	10		Extremely
Knight's Pond	49.4	250	18	9		Highly
Leigh's Mill	39.5	55,425**	23	10		Extremely
Round Pond	1.0	NA	NA	NA		Extremely
Warren Pond	24.7	269	32	16		Highly

* Based on a vulnerability index which takes into consideration watershed area, flushing rates and town-wide growth rates between 1982-1987 within towns located in the watershed. For example, a lake with a large watershed, slow flushing rate and a high growth rate would be extremely vulnerable.

** Leigh's Mill Pond is an impoundment of the Great Works River, so shares its watershed.

Since the writing of the narrative, the state has reclassified vulnerability into action priorities. Priority watersheds are those which are currently experiencing changes in land use which have already started to impact water quality in those water bodies. The notes from DEP below update in cursory form the current status of S. Berwick Ponds.

Notes on South Berwick Ponds 3/27/03

Pond Status and Recreation:

Four of the Town's Ponds are considered "Great Ponds" by the State. This means they are owned by the people of the State of Maine and may be accessed on foot over unimproved private property for fishing and fowling. This does not imply a right to park, beach, sit or lie upon private land, only a non-motorized right to pass. A great pond is one which is 10 acres or more if naturally occurring and 40 acres or more if impounded. Most of the great ponds in South Berwick are currently enrolled in the Maine Volunteer Lake Monitoring Program, which assesses them for clarity (algal blooms) indicating trends in water quality. Recreational uses vary from pond to pond, however none of the ponds experience a high degree of motorized uses. Motorized uses which can stir bottom sediments of shallow ponds can rapidly degrade water quality as these sediments tend to bind phosphorous when they are undisturbed. All of these ponds have been given Resource Protection Zoning status by the Town in an attempt to maintain both water quality and wildlife status.

Cox's Pond is the smallest great pond and has been restricted by IF&W (after citizen petition) for horsepower of motorized watercraft to 10 hp or less. This shallow pond has a warm water fishery, is a high value wildlife area, an extensive wetland complex

surrounding it (including an acidic fen with peat shoals). It has no direct public access. It is not a swimmers pond due to high coloration, snapping turtles and snakes. It provides fishing opportunities (ice and open water), hunting and quiet recreation, bird/ wildlife watching. Its source is winter run off to numerous sphagnum based wetlands, which store water capacity during wet months, and spring fed. Shallow waters make it vulnerable to invasive species which would adversely impact fisheries and wildlife capacity over two thirds of its surface area.

Knight's Pond has a high potential for recreational use. It is both a warm water fishery, and it also supports a cold water fishery which is stocked with brook trout by MDIF&W. In addition to fishing (ice & open water), hunting, skating, swimming are also recreational uses. It has a high wildlife value due in part to the large wetland complex at its outlet. Osprey can be seen feeding from the pond throughout the summer months. It's relatively small watershed and sandy soils offers little buffering capacity to changes in land use. It is almost entirely spring fed requiring ground water infusion to maintain quality and quantity. It has no direct public access, though the proposed Eastern Trail will run along the old railway bed/Northern Utility Gas corridor along its eastern shore. Due to light permeability, shallow water depths and high recreational use, this pond is vulnerable to invasive species which would adversely affect up to 80 percent of the surface area, impacting swimming, fisheries and wildlife values. Knight's Pond is on the DEP "Lakes Most at Risk from Development" list under the Storm Water management Law (Chapter 500 and 502) . To be placed on this list a pond must be particularly sensitive to eutrophication.

Leigh's Mill Pond is an impoundment of the Great Works River used in producing hydro power. Its water quality is directly related to the River water quality. It has been given a high wildlife value by IF&W due to the location of the estuary at its outlet. Bald eagles feed and winter at the confluence of the Great Works and Salmon Falls. Ospreys, wading birds and migratory fowl use the area during other seasons. Its steep shore line creates potential for erosion and related water quality degradation. The pond is stocked with trout by IF&W and has a warm water fishery. This pond experiences a high degree of recreational use. The island in the middle has been highly eroded by swimmers and other users. Paths by swimmers to the shoreline have created erosion issues on privately held land as have drainage systems from near by roads. Occasional motorized use has been tempered by shifting water levels and the presence of dead tree stumps. There is no direct public access to this pond, though approximately one third of the shoreline is bounded by a town road. Access has been over the private property buffering the pond. This pond is on the DEP "Watch List" for water quality. This means that the water quality data are showing a long term downward trend that may well lead to the pond not meeting its state classification and proscribed uses such as swimable and fishable.

Warren Pond is the Town's most isolated pond. It is the State's southern most cold water fishery supporting a native trout population. Its isolated nature has made it a haven for wildlife. IF&W has given the pond and its associated wetlands a high wildlife

value. Shallow soils in the watershed make it extremely sensitive to land use changes, as do steep slopes and rocky ledges. Its isolated nature has limited use as an active recreational pond. Its deep cold waters do show signs of internal recycling thought to be from past logging practices over seventy years ago. Should water quality degrade, and phosphorous levels increase, the level of internal recycling will lead to oxygen depletion over a wider range of the water column and will directly impact the ability for this pond to support a cold water fishery. Though old trails and tote roads pass the pond, there is no direct public access to this pond. Warren Pond is on the DEP " Lakes Most at Risk from New Development" list under the Strom Water Management Law (chapter 500 and 502). To be placed on this list a pond must be particularly sensitive to eutrophication.

Round Pond is an "acidic kettle hole" bog. Specific water quality data is not available for this pond. Its open water is surrounded by a sphagnum mat and peat shoals. This mat is habitat for bog species of plants such as pitcher plants and sundews. Its water is highly colored and tannic in nature. Water levels and quality are most likely maintained by the extensive absorption capacity of the sphagnum to winter snow levels and rainfall run off.

b. Threats to Surface Water Resources

There are two types of pollution that threaten surface water: point and non-point. Point pollution is attributable to a specific source such as a pipe discharging into a stream. Non-point pollution comes from a general source such as stormwater runoff that carries oil or road sand into a stream.

The only regulated source of point pollution in South Berwick is the Town waste water treatment facility which discharges treated waste water into the Salmon Falls River. Overboard discharge systems should be encouraged to tie into the Sewer District as conditions allow.

There has not been a complete inventory of non-point sources. These are likely to occur where there are large areas of impervious surfaces and development, or where land use is being converted from rural to urban/suburban. These effects could be minimized with good planning of development with use of best management practices (BMP's) before, during and after construction throughout the watershed. Consideration could be given to some of the newer BMP's such as pervious pavement, rain gardens and low-impact development techniques to handle storm water.

Eutrophication (the response of plant and algae growth to nutrients which degrade water quality for recreation and habitat) and invasive species are significant threat to surface waters.

In 2003, the EPA and DEP required the town to develop a Storm Water Management Plan in order to conform to the Clean Water Act as an MS4 community. This is to mitigate and remediate the effects of non-point sources of pollution from developed areas.

Waterfront property continues to be a desired area for housing, as watersheds change character from rural to residential. Development impacts will play a strong role in the carrying capacity of surface waters to meet desired values.

5. Ground Water Resources

The residents of South Berwick rely on ground water for their safe drinking water. Continued assurance of plentiful, clean water is dependent on wise management of the resource. Aquifers (saturated geological formations containing usable quantities of water), can be contaminated by many types of land uses that discharge pollutants into or onto the ground. The primary sources of ground water contamination in Maine are malfunctioning septic tanks, leaking underground fuel storage tanks, salt leachate from salt/sand stockpiles, and leachate from landfill refuse. Certain land uses such as automobile graveyards/ junkyards, agricultural use of pesticides and herbicides and certain industrial activities also have potential for contaminating ground water.

Two types of aquifers are present in South Berwick: sand and gravel aquifers and bedrock aquifers. At least several of the sand and gravel aquifers extend into Berwick and Eliot. An area of potential bedrock aquifers extends into Berwick and North Berwick. The Maine Geological Survey identified several sand and gravel aquifers. The "Aquifer Protection Study" done March 1989 by R.W. Gillespie & Assoc. *(on file in Planning Office)* further identified sand and gravel aquifers and located bedrock aquifer zones that appear to have significant water supply potential. This study also identified potential hazardous waste generators and developed an aquifer protection ordinance.

Four sand and gravel aquifers were identified in South Berwick. These are aquifers that have the potential to produce significant (greater than 10 gallons per minute) quantities of groundwater. These aquifers as well as their recharge areas have been mapped.
The aquifer that underlies the village portion of the Town supplies the Water District's seven wells off Agamenticus Road and Willow Drive. The Water District has completed a study on the Willow Drive well #2 which has examined both quality and quantity issues for that well water source. The Water District study identified a likely area of groundwater recharge potential which should be considered for protection from imperious surface development in order to protect the recharge capacity of the well. The Water District is discussed further in the Public Facilities chapter of this plan.

The aquifer located in the most southerly part of Town is a source for individuals and the new Marshwood High School. According to Gillespie, the water quality in this area is lower than the village aquifer due to iron and manganese content.

Another aquifer is located on the Hooper Sands Road just southwest of Great Hill. Approximately 9 individual wells along Hooper Sands Rd. and Knight's Pond Rd were contaminated with volatile organic compounds. These wells were believed to be supplied by the sand and gravel aquifer. The Hooper Sands Hydrogeological Study performed by the US EPA and the MEDEP outlined the source, extent and type of contamination. The South Berwick Water District has run a 12" water main along Knight's Pond Rd to service households in the area. Since a public water supply has now been provided the MEDEP has discontinued the monitoring of the test wells drilled to perform the study. Contamination of the aquifer and movement of the contamination plume still exists, and is no longer being monitored.

a. Ground Water Quality

Though overall, the quantity and quality of South Berwick's ground water is good, there are issues with iron and manganese for both private well owners and the SBWD. A few areas in Town experience issues with sulfur in private wells.

b. Threats to Ground Water

Polluted aquifers in the Hooper Sands area continue to pose a threat as the plumes slowly migrate. This area and others documented should continue to be monitored. Future residential, commercial and industrial development can impact ground water through on site waste water treatment, improper storage of hazardous materials and improper ground surface treatments.

Marine Resources

South Berwick has approximately 4.5 miles of tidal shoreline on the 3.7 miles of Salmon Falls River from head tide at the Route 4 bridge, south to the mouth of Shorey's Brook and the Eliot town line. Rather than a marine ecosystem, this area comprises an estuarine ecosystem. As such, it provides habitat for anadromous fish species such as smelt, blue backed herring and occasional Atlantic sturgeon (listed as a threatened species). Harvesting of these species is regulated by the Maine Department of Marine Resources and is adopted and posted annually by the South Berwick Town Council. Other fish species found in the river are menhaden, blue fish and striped bass. It also provides seasonal habitat for species feeding on these fish from harbor seals to osprey and bald eagles. Migratory waterfowl and wading birds feed along high value (IF&W) marshlands adjacent to the river. The "Beginning with Habitat Program" identifies rare plant and animal species found along the River corridor. The presence and health of all these plants and animals depends on the water quality of the river. In 1999, this portion of the Salmon Falls River was reclassified SC. (see Water Resources p.2) Tidal water areas are closed to commercial shell fishing. In the early 1990s a commercial fishery for North Atlantic Oyster was discontinued after other areas were identified and permitted within the Great Bay estuarine system. Influxes of fresh water and nutrients during storm events from the watershed and its tributaries make commercial shell fishing non-

economical. Recreational fishing is a major use of the area fishery. The lower Salmon Falls estuary is annually stocked with brown trout by MDIF&W as part of an experimental program to create a sea-run trout fishery to support recreational use.

The 1990 South Berwick Comprehensive Plan recommended an increased level of protection of the estuary resources. As a result, the Salmon Falls estuary was placed in Resource Protection under the South Berwick Zoning Ordinance. This has served to buffer and limit shoreline development through the area. South Berwick in partnership with the Great Works Regional Land Trust, also created the Salmon Falls Greenbelt Plan as an educational document to guide voluntary landowner participation in the protection of the resource. A self guided River Trip brochure was developed for recreational use of the River and parks with semi-tidal access boat ramps have been created at head tide (Counting House Park) and at the Route 101 bridge, creating a River Trail system. These parks compliment the other permanently conserved open space on both the South Berwick and Rollinsford, NH banks of the River, creating an extraordinary natural and historical perspective for those who use the resource as a form of recreation. (see open space inventory for conservation lands)

In 2003, the State of New Hampshire has announced a plan to consider combining sewer outfalls of Towns along the Maine border and others with limited discharge potential into surface waters into a single outfall at a location with greater diluting capacity. Two of these sites are located in the Piscataqua in Newington, NH. Discharge in this area will have an effect on the inflowing tidal salinity and nutrient load and reduce the flushing rate of the estuary from upstream nutrient loading. This could have a serious impact on water quality throughout the estuary. If this plan is implemented, South Berwick should be an active participant. (see Section 9

6. Future Adequacy of South Berwick's Water Resources

Given the rate of residential growth projected for South Berwick, current drinking water supplies should be adequate for the foreseeable future. Possible problems would be threats to individual wells from contamination and increased demand for ground water spurred by industrial and commercial growth. As rural areas become developed, the capacity to develop new municipal supplies with adequate well head protection will be limited.

Priorities of values should be established for the surface waters regarding their recreational uses as once these values are lost, they will be unlikely to be reestablished.

7. Adequacy of Existing Measures to Protect and Preserve Significant Water Resources

South Berwick's current measures to protect water resources consist of the shoreland zoning ordinance, resource protection ordinance, subdivision and site plan review standards; including standards for maximum impervious surface, drainage provisions

and storage of pollution-causing materials. Further, protection of floodplain areas should be maintained.

8. Regional Issues

There are no immediate regional water issues facing South Berwick. The town shares sand and gravel aquifers with several surrounding communities and a watershed with the Kittery Water District. South Berwick also shares a significant surface water resource, the Salmon Falls River with other communities in both Maine and New Hampshire. The EPA has mandated towns that discharge waste water into the Salmon Falls to meet higher effluent discharge standards in an effort to reduce phosphorous loading into the River. Regional efforts should address the continued protection of both surface and ground water resources held in common given the expected regional growth of the area.

9. New Hampshire Wastewater Marine Outfall Project

The City of Rochester, NH has limitations for discharging treated sewer water and is seeking to increase its' capacity for municipal sewers by transporting wastewater through other seacoast communities to a discharge point with a greater capacity for dilution.

The State of NH is considering combining the effluent wastewater from Rochester and other communities with potentially limited discharge points to surface waters. The "headwater" for this conceptual project is the Rochester Wastewater Treatment Facility in Gonic, NH that discharges into the Cocheco River. A corridor study, by Underwood Engineers of Portsmouth, NH, has been done that sites a sewer effluent force main from Gonic (Rochester) through the towns of Somersworth, Dover, Madbury, Durham, crossing Little Bay into Newington with the possibility of continuing to Portsmouth, New Castle and into the Gulf of Maine. The corridor study identified three alternative discharge points: two into the Piscataqua River in Newington and Portsmouth and one offshore in the Gulf of Maine.

The State of New Hampshire has drafted legislation to form an authority comprised of local participating communities. A consulting engineering team has been selected that is headed by Metcalf and Eddy Engineers.

The Town of South Berwick by way of its' significant waterfront along the tidal portions of the Salmon Falls River, that along with the Cocheco River and Fresh Creek forms the Piscataqua, may be impacted by tidally borne sewer effluent at greater concentrations than now present.

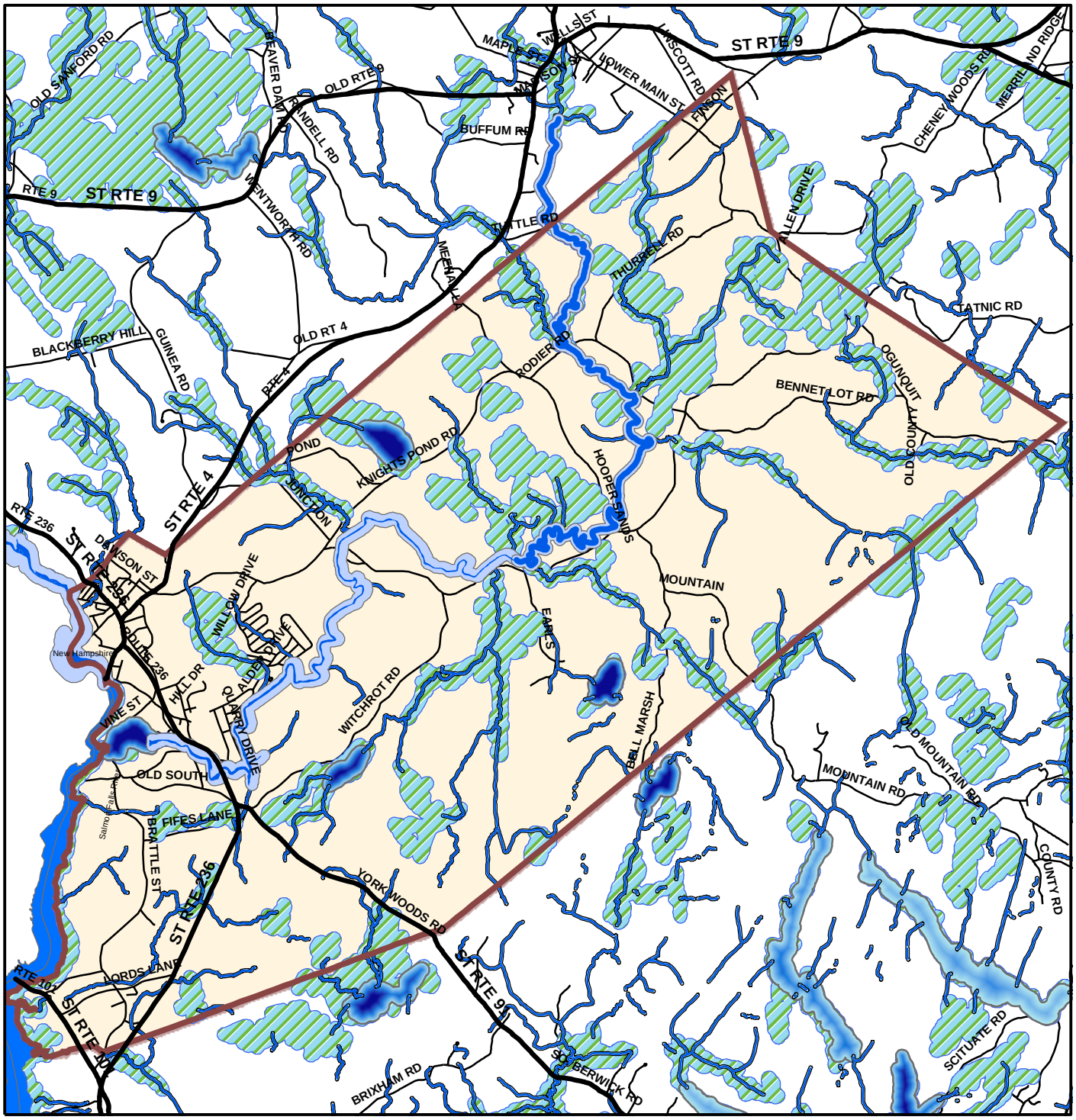
Depending on the outcome of the proposed 2004 study and future actions, it is prudent for the Town of South Berwick, through its' planning office, liaisons with neighboring

towns, state and regional organizations, to monitor the study and other outcomes that may have an affect on the community**.**

MAPS

H.1 Water Features
H.2 FEMA 100 Year Flood Plain

SOUTH BERWICK
WATER FEATURES



Legend

- Public Roads
- Stream
- Stream Buffer
- River
- River Buffer
- Pond Buffer
- Wetlands > 10 acres + Buffer
- South Berwick Town Border
- Surrounding Town

N

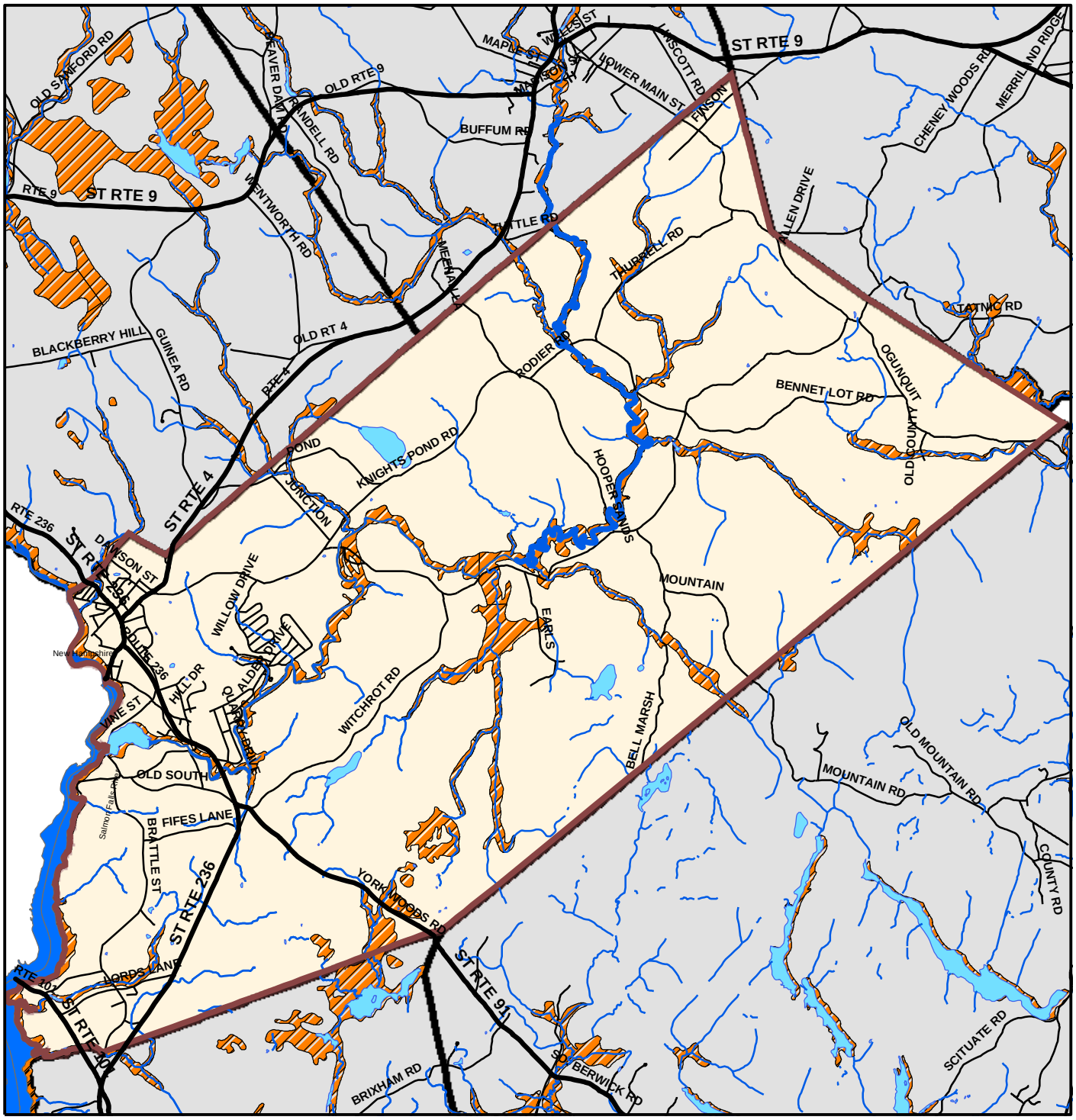
1 0.5 0 1 Miles

Additional Sources: Maine Department of Inland Fisheries and Wildlife, Maine Office of Geographic Information Systems

Map Created on March 11, 2003

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

SOUTH BERWICK
FEMA 100-YEAR FLOODPLAIN



Legend

- Roads
- Stream
- River
- Pond
- FEMA 100 Yr Floodplain
- South Berwick Town Border
- Surrounding Towns

N

1 0.5 0 1 Miles

Additional Sources: , Maine Office of Geographic Information Systems, and FEMA

Map Created on March 11, 2003

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

I. AGRICULTURAL, FORESTRY AND WILDLIFE RESOURCES

1. Purpose

This section describes the current condition of South Berwick's agricultural, forestry and wildlife resources, examine its potential, assess whether the viability of these resources is threatened by future development and considers potential tools to protect and preserve these resources.

2. Key Findings and Issues

South Berwick is in transition from a rural community to a more suburban town as development continues. Over the last 10 years, growth has continued in all sections of the Town. Land has been developed where it has become available and affordable. Many rural roads have existing frontage developed, and more recently, lot prices have justified the construction of new roads into traditionally rural lands. Sprawl is and will be an issue the Town needs to address.

Open space, as traditionally thought, includes a variety of lands including working farms and forests, undeveloped areas along roadsides, wetlands and streams, ponds with unpopulated shorelines, wildlife habitat and even golf courses and ball fields. Many of these types of lands offer a variety of public benefits; scenic, economic and recreational. Recreation may range from the ability to hunt and fish, hike and explore to active, intensive recreational pursuits. Powderhouse Hill offers skiing in the winter, but a quiet hillside meadow in the summer for wildlife and a scenic vista for people. Farms and working forests provide wood, fresh produce, meats and hay supporting a rural infrastructure, but they also provide valuable wildlife habitat, scenic vistas and a cultural connection to our rural roots. Unlike many towns, South Berwick still has an opportunity to conserve its rural landscape as it shapes development.

South Berwick has a viable economic agricultural and forestry base of small farms and woodlots, which also provide scenic and recreational values as desired by the public. The maintenance of these operations is important to maintaining the rural character valued by town residents. Rising valuations, operating expenses and development pressure are causing land owners to reassess their operations and in some cases sell out to development. Once developed for residential use, these resources can not be reestablished.

3. Public Opinion Survey and Community Vision Meeting Results

The Community Vision meeting identified preservation of open space, protection of wetlands, wildlife corridors and farmlands as key challenges facing South Berwick. Results of the community survey identified loss of open space and rural character as important challenges facing the town. The survey also identified that preservation of woodland and active recreational areas were important.

4. Agricultural Values

Farms in South Berwick are mainly part-time subsistence operations selling their surplus to local markets. This is very similar to the method of agriculture found prior to the early 20th century. Electricity and machinery allowed the growth of commercial dairy operations since the 1920s. The only remaining dairy operation in town straddles the Berwick town line. Traditionally, farms occupied most of the area outside the village district. Their barns, stone walls, and old fences are still in evidence today. Active farms can be found scattered along most rural roads. From Old Fields Road in the south to Tatnic Rd in the north, most farms encompass 20 – 40 acre parcels, with a few owning 100 acres or more. They provide scenic value, wildlife habitat and economic benefits. Many provide passive recreational opportunities for area residents. Farms east and north of the Great Works River consist of shallow soils and rocky outcrops. Much of the open land is pasture with small hayfields of less than six acres. Farms to the west and south of the Great Works River tend to have deeper, more productive soils, which can be used for cropland as well as pasturage. All farms are feeling pressure from escalating land values.

Soils recognized as Prime and Statewide Important Farm land soils (2002) by the State of Maine can be mainly found west of the Great Works River and along the Salmon Falls River.

Allagash- very fine sandy loam, B & C slope
Becket- fine sandy loam, B & C slope
Buxton- silt loam B &C slope
Elmwood- fine sandy loam B & C slope
Madawaska- fine sandy loam B slope
Marlow- fine sandy loam B & C2 slope
Onawanda- fine sandy loam
Peru- fine sandy loam B slope
Scio- silt loam B slope
Skerry- fine sandy loam B & C slope

Some of these soils are occupied by active farms today; including farms along Pond Road, Knight's Pond Road, Hooper Sands Road and Agamenticus Road. Farms occupying these soils are the focus of a new initiative with in the State of Maine to conserve farmland. Matching grants can be obtained by municipalities and land trusts to acquire development rights for viable farms from both State and Federal sources. Map I.1 shows the location of these Prime Farmlands.

Another way to estimate current amounts of agricultural land is through the acreage of land held under the Farm Land and Open Space Act. This act allows owners of farmland property tax relief (lower assessed valuations based on acreage use) for parcels over five contiguous acres if they meet certain conditions such as a minimum farm-derived income (can be for personal use). Normally, qualifying farmers with a long-

term commitment to farming would participate in this program. Only 8 of South Berwick's approximately 30 farms (not including backyard stables) are currently enrolled. An educational program for land owners with accurate information about new valuations and penalties for withdrawal from the program would assist landowners in making wise land use decisions for their farms. The Town does not lose any tax revenue on this program until a farm has been enrolled for more than ten years.

5. Forest Resources

Forestland is shared space with farmland outside the village district. Traditionally, wood harvested from woodlots fueled homes within Town as well as being sold to Dover and Portsmouth. The extensive forests of the Greater Mount Agamenticus region are a combination of Oak/Hickory and Hemlock/White Pine trees. The mixed wood nature of the forest type provided building products as well as fuel. Many of these wood lots have continued to support forestry uses through current times. Revenues generated through regular harvesting paid taxes on these open lands. Today, working forests are threatened by high land values. Many which have been tended for sustainable use are being liquidated then sold to development. Liquidation loggers are also contacting land owners unfamiliar with forestry, promising high revenue generation for a forest product, but not explaining the ramifications of land with all marketable timber cut or its environmental impact. Once harvested this way, these lands will require 50 - 60 years before another productive harvest can occur. The Tree Growth Taxation Law has been successfully employed by land owners in Town. However, requirements to upgrade forest management plans have been a challenge to some land owners. Over the past few years, the acreage enrolled in this program has decreased. Better education for land owners regarding their forestry options and resources would allow land owners to make wise decisions regarding their land uses.

6. An Analysis of Threats to Farm and Forest Land from Projected Development

Conversion of farmland and forestland to residential use is the largest threat facing these resources. Liquidation logging practices consume forest products and future marketable product. Large parcel size of most farms, lower clearing and preparation costs for lots on agricultural lands make them attractive to developers. Land owners of larger parcels are receiving regular solicitations via phone and mail as to the availability of their lands for sale. As farm and forest acres decrease, the infrastructure which they supported will also decrease. Support services for those land uses will also decrease. This can create a spiraling effect which can cause the collapse of this economic sector.

7. Wildlife Lands

There has been a great deal of progress made on conserving the Town's wildlife lands since 1991. These lands are found mainly along the Salmon Falls River and the Greater Mount Agamenticus region.

In 1979, the Tri-Town coalition (Eliot, York and South Berwick) responding to a development proposal involving Mount Agamenticus identified lands in their Towns which warranted conservation. This region became known as the Greater Mount Agamenticus Region and incorporated 33,000 acres of Eliot, South Berwick, York, Ogunquit and Wells. In South Berwick this area encompasses the eastern and northern side of Town. It is bounded by Rt. 236, Witchtrot Road, Emery's Bridge Road to Rodier Road, and Thurrell Road. These 33,000 acres create the largest block of unfragmented habitat on the coastal plain between Acadia National Park to the north and the New Jersey Pine Barrens to the south giving it a regional, if not nationwide significance. These acres are not only recognized for their vastness, but also for their productivity and diversity for wildlife. Two forest types intermingle here; Northern Boreal (softwoods) and Southern hardwoods. As a result, the animal species depend upon these habitat types, and also intermingle here. This area holds the highest biodiversity in the State of Maine. It is home to endangered plant and animal species as well as broad ranging species (moose, black bear and bobcat) and contains one of the highest concentrations of productive vernal pools in New England.

Conservation efforts have been the result of a collaborative approach by many partners and supported by grants from the Land For Maine's Future Program, the Maine Outdoor Heritage Fund, the Town of York and Wells and many private donors. The Towns of York, Eliot, South Berwick and Wells, The Nature Conservancy, the Great Works Regional Land Trust, the York Land Trust, the Kittery and York Water Districts, the State of Maine Department of Inland Fisheries and Wildlife have formed a collaborative to work with willing land owners to conserve their lands through either purchase or easement. To date these efforts have conserved more than 10,000 acres. Future efforts are being made to expand around existing conservation lands and create corridors between conserved lands. In the past year, conservation efforts have focused around the creation of a Site Conservation Plan developed by the partners, interested public and recreational stakeholders. This plan is helping to coordinate limited resources and prioritize efforts towards conserving the most important aspects of this region. The land owning partners have formed an oversight committee: The Mount Agamenticus Steering Committee, to manage public use of these lands and minimize the impacts of recreation on wildlife and water quality. Existing conservation lands are shown on Map I.2.

The Maine Department of Conservation's "Beginning with Habitat" program has provided maps of habitat blocks and endangered species habitat, as well as identified rare natural communities of plants and animals. Program information provides detailed descriptions of habitat types, species requirements and threats to their habitat needs. The Town has also received overlay maps of soils, wetlands and conservation lands from the Southern Maine Regional Planning Commission. The Conservation Commission also has an open space map indicating the variety of conservation lands in Town, Resource Protection Districts and shoreland zoning.

The other wildlife focal area is the Salmon Falls River Estuary. This area received Resource Protection Zoning in the early 1990's in order to protect this wildlife corridor

and water quality. The estuary is used by anadromous fish species, which access the freshwater above head tide, due to the construction of a fish ladder at the Route 4 dam. It is essential habitat for waterfowl and wading birds, osprey and over-wintering bald eagles. Endangered Atlantic sturgeon and oysters also inhabit these waters. In 1992, the Planning Department, Conservation Commission and the Great Works Regional Land Trust collaborated on a greenbelt plan for the estuary portion of the River. They also produced a guided river brochure for canoes and kayaks. This tour runs from the Route101 boat ramp to the Counting House Park at head tide. Efforts are underway to work with willing landowners along the river corridor to conserve their lands. Much of the shoreline today appears as it did 300 years ago.

In addition to Mount Agamenticus and the Salmon Falls River, the Great Works River provides a meandering wildlife corridor through town. Resource Protection extended to the river upstream from Emery's Bridge Road and the river's major tributaries provide connecting corridors for wildlife from one area to the other. The undeveloped nature of the Town's great ponds make them important habitat for migratory waterfowl as well as broad ranging species such as moose and black bear.

8. Adequacy of Existing Measures to Protect Farm, Forest & Wildlife Lands

Tree Growth , Farmland and Open Space taxation is presently the only measure in effect to conserve these lands. This protection should not be considered permanent.

Some towns have enacted land use ordinance measures to increase protection of agricultural and forest resources. As South Berwick formulates its forest and agriculture policies, it may want to review what other towns have done including enacting farm and forest districts with large lot sizes and/or cluster development preserving these values.

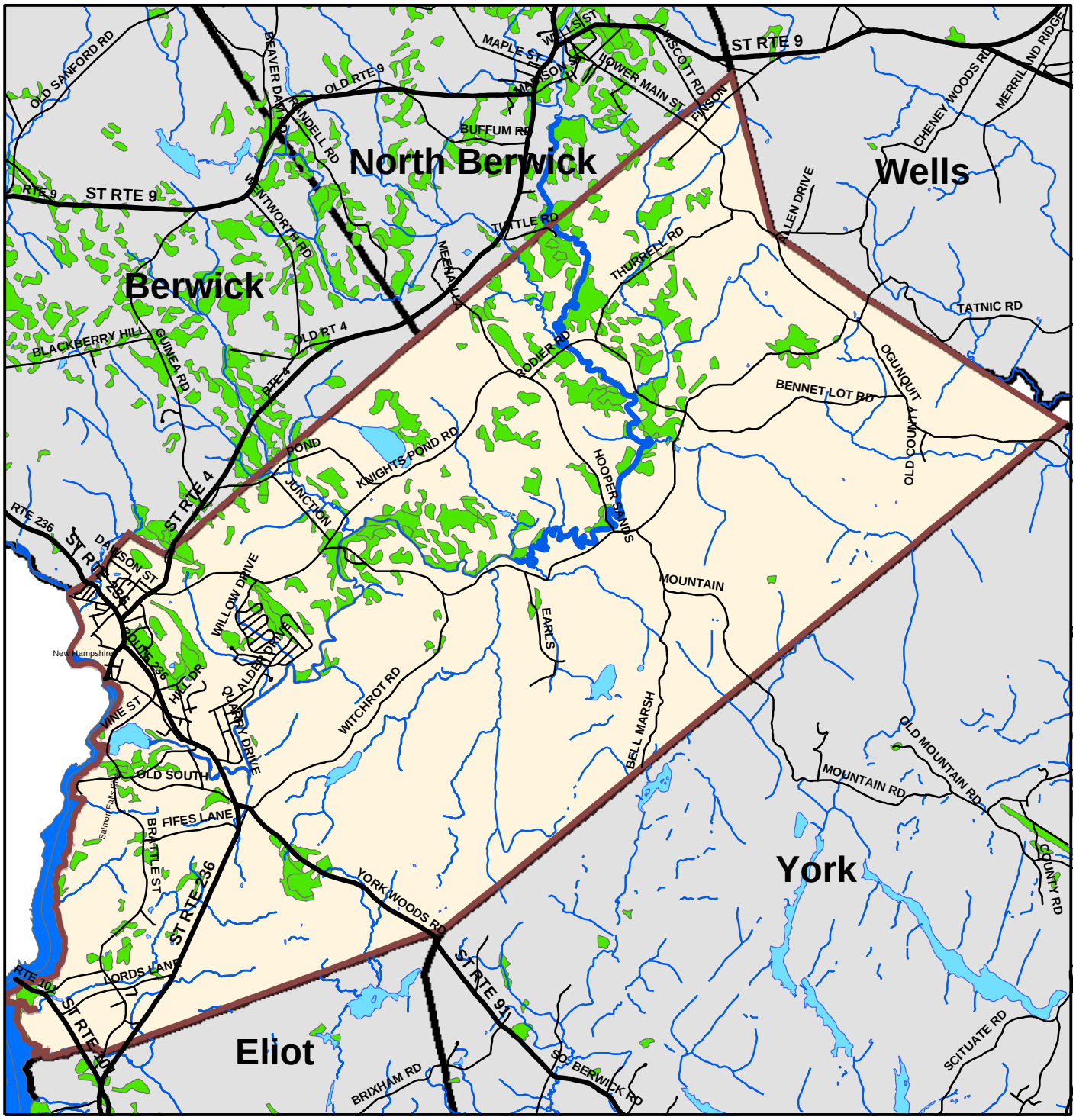
South Berwick can also work with the Great Works Regional Land Trust in identifying parcels from which voluntary easements could be acquired from interested landowners. While a parcel under conservation easement will qualify for the above taxation programs and thus have a lower tax value, such parcels are usually a long term tax advantage to the town. First, the value of adjacent parcels to conserved lands often increases. Second, the tax revenue produced from the parcel if it were developed would probably be less than the cost of providing municipal services such as schools and public safety services to the new homes built on the site.

9. Regional Issues

One of the key ways to keep land in farm and forest uses is to allow owners of this land to yield a decent income. This can be facilitated through regional efforts to develop new markets for locally grown foods and forest products. This past year, the Town supported the creation of a farmers market. The town can also contribute to conservation of these resources through the purchase of conservation easements.

MAPS

SOUTH BERWICK
PRIME FARMLAND



Legend

- Roads
- Stream
- River
- Pond
- Prime Farmland
- South Berwick Town Border
- Surrounding Towns

N

1 0.5 0 1 Miles

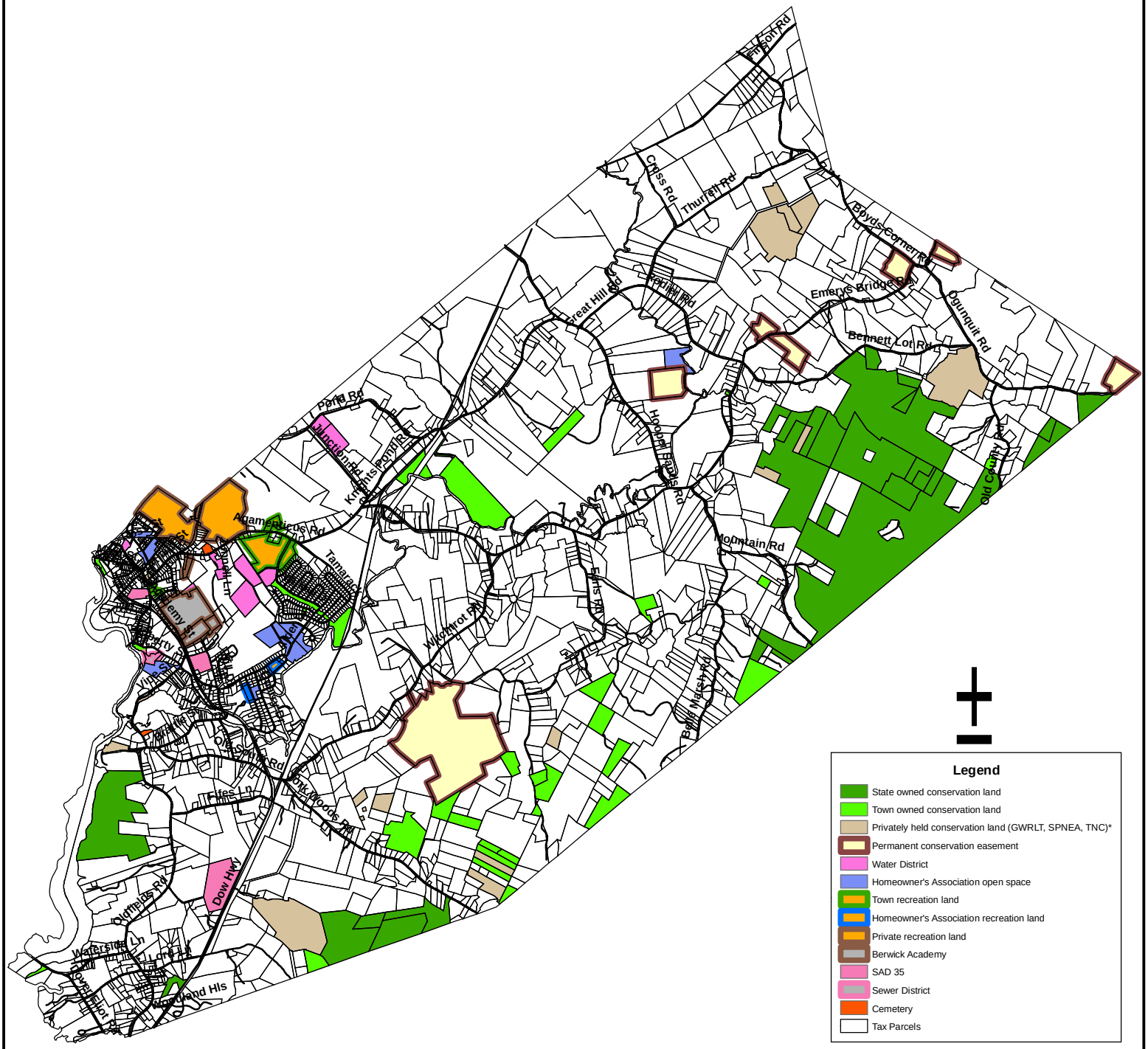
Additional Sources: Maine Office of Geographic Information Systems, and York County Soil and Water Conservation District

Map Created on March 11, 2003

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

South Berwick

Lands Not Readily Available For Develpment



Legend

- State owned conservation land
- Town owned conservation land
- Privately held conservation land (GWRLT, SPNEA, TNC)*
- Permanent conservation easement
- Water District
- Homeowner's Association open space
- Town recreation land
- Homeowner's Association recreation land
- Private recreation land
- Berwick Academy
- SAD 35
- Sewer District
- Cemetery
- Tax Parcels

* Great Works Land Trust, Society for the Preservation of New England Antiquities, and The Nature Conservancy

Sources: Town of South Berwick and Maine Office of GIS

September 9, 2004

0 1 Miles

SOUTHERN MAINE REGIONAL PLANNING COMMISSION

J. HISTORICAL, ARCHAEOLOGICAL & CULTURAL RESOURCES

1. Purpose

Historical, archaeological and cultural resources contribute significantly to a community's character and make each town distinctive and welcoming. These resources are important not only for their role in South Berwick's history, but also for their present-day value. Historic buildings and sites add to the town's quality of life and their presence helps maintain property values.

Specifically, this section presents a brief history of the town, describes South Berwick's historical, archaeological and cultural resources, assesses threats to these resources and considers the effectiveness of existing measures to protect and preserve these resources.

2. Key Findings and Issues

One of Maine's earliest European settlements, South Berwick possesses a number of locally and nationally significant historic and archaeological sites. However, the Town lacks a comprehensive inventory of these resources. A locally designated historic district in the downtown area, and an associated zoning ordinance, provide limited means of protection of historic resources in the downtown. Other significant resources outside of the district are not protected.

South Berwick has a large number of locally and nationally significant historic sites. In the downtown, historic structures 100 and 200 years old and older still line streets that were laid out in colonial times and meet at the Sarah Orne Jewett House, a National Historic Landmark and home to perhaps the state's most famous writer. Significant historic sites outside the downtown include schoolhouses, mill and railroad sites, the former Town poor farm, a town Grange hall, churches and cemeteries.

Limited archaeological investigation suggests the riverfronts near the Hamilton House and at the confluence of the Great Works and Salmon Falls Rivers were occupied on several occasions during the past three to five thousand years.

3. Public Opinion Survey and Community Vision Meeting Results

The 2003 Community Survey found that a majority of those surveyed felt the preservation of historic sites is an important use of tax dollars. The 2003 Community Vision meeting identified several key issues facing the Town. Many identified the need to preserve historic structures. Also expressed was the need to develop and expand existing educational programs to inform residents of the rich and vibrant history of South Berwick. Many residents felt there was a need to expand the Historic District, increase the listings on the National Historic Register and document/inventory more historic sites.

4. Historical Overview

South Berwick was home to author Sarah Orne Jewett (1849-1909), whose works captured the flavor and values of 19th century Maine life for all time. But South Berwick's historical value exceeds even that of this prolific author.

One of Maine's earliest European settlements, South Berwick contains one of America's earliest water power sites, near the confluence of the Great Works and Salmon Falls Rivers (1634-1640). The sawmill was near a later one operated by the Humphrey Chadbourne family, whose 1650-90 homestead has recently become one of Maine's most important 17th century archaeological sites. Before white settlement, prehistoric artifacts in this area also indicate inhabitation of this part of Maine and the Piscataqua region for some 11,000 years.

Part of the port of Portsmouth during colonial and early federal times, the Town saw the construction of deep water sailing ships along the Salmon Falls River, as local sawmills processed abundant timber. Quamphegan Landing was a port of gundalows, the river craft that was the mainstay of South Berwick commerce until the railroads came. Downtown South Berwick's two main streets, Main and Portland, were part of the Boston-to-Portland stagecoach road.

South Berwick has accepted free thinkers since 1650 as a site of religious expression and diversity, attracted some of Maine's earliest Baptists, Free Will Baptists, and Quakers, and was home to temperance and abolition activists in the 1800s. Maine's oldest school, Berwick Academy (founded 1791), has educated generations of South Berwick residents, including notable civic leaders such as John Noble Goodwin, whom Lincoln appointed territorial governor of Arizona.

Construction of the Portsmouth Manufacturing Company cotton mill at Quamphegan Landing c. 1830 ushered in South Berwick's factory era, and later the Irish and French Canadian immigration in which many present-day residents claim roots.

During the 20th century, local author Gladys Hasty Carroll (1904-1999) stressed the need for respecting the past and honoring the ancestors who settled and struggled in this place.

5. Historical and Archaeological Resources

a. <u>Prehistoric Archaeological Resources</u>

By definition, archaeological resources are those below ground. There are two types of archaeological resources: prehistoric and historic. Prehistoric archaeological places are those associated with Indian archaeology and generally date prior to the 1600s and European settlement. Historic archaeological places are those associated with the earliest European settlers.

With the exception of the sites of Maine's earliest known inhabitants, Paleo-Indians, at the end of the last ice age, most prehistoric archaeological sites are found along water bodies. The remains of Paleo-Indians are often associated with Aeolian (duned) or sandy areas, because these areas made suitable campsites.

Prehistoric artifacts indicate inhabitation of this part of Maine for at least 4,000 years (2000 BC). The Maine Historic Preservation Commission (MHPC) has identified a prehistoric site estimated to be 4,000 to 5,000 years old on the Hamilton House grounds owned by Historic New England. Prehistoric artifacts have also been found at the Humphrey Chadbourne archaeological site at the confluence of the Great Works and the Salmon Falls Rivers.

The MHPC has also mapped potential archaeological resource areas where there is a high probability of encountering a significant archaeological site. The Commission recommends these areas be surveyed and a review mechanism established to provide a field check prior to any ground disturbance and/or construction activity.

Archaeological resource potential areas include the shore lands of the Salmon Falls River, Leigh's Mill Pond, the Great Works River up to Hooper Sands Road, Knights Pond and a wetland south of the York Woods Road and extending into Eliot. Aeolian, or sand, areas include "The Sands" along Hooper Sands Road and an area associated with White Marsh Brook and extending into the Town of York.

b. Historical Archaeological Resources

The earliest historical archaeological resources are sites with evidence of early European habitation during the 1600s. The most important locations of the first or earliest settlers are those that are undisturbed and have retained a significant amount of integrity. Generally, these sites or areas are found within 100 feet of navigable water.

The following is a partial list of historical archaeological sites. With the exception of the Jewett House grounds, the Humphrey Chadbourne site and the Great Works Mill site, all the other sites must be researched further to identify their exact locations:

- Great Works Mill site (1652-69) Site of one of the first water power mills in the new world.
- Humphrey Chadbourne site (ca 1643-1690)
- Jewett House Grounds (1774 on)
- Miles Thompson House (1656)
- John Heard House (by 1640)
- John Morrell House (1668)
- John Plaisted House (ca. 1690)
- Daniel Goodwin, Sr. House (1654)

- John Lamb House (1656)
- Humphrey Spencer House (pre-1676)
- John Crawford House (1676)
- William Pile / James Smith House (1659/1663)
- Moses Spencer House (1680)

The Humphrey Chadbourne site, discovered in August 1995, is one of the most artifact-rich and important archaeology sites discovered in southern Maine, and is clearly a site with not only local but also national significance. Each summer since its discovery in 1995, the Old Berwick Historical Society has sponsored a two-week excavation at the site. The project is a unique partnership between Salem State College, Old Berwick Historical Society, the Chadbourne Family Association, as well as professional archaeologists and dozens of community volunteers. The site appears qualified to be on the National Register of Historic Places. The Maine Historic Preservation Commission has also noted that the entire Great Works river valley and the Salmon Falls River bank are archeologically sensitive and need further survey.

c. Historical Resources

This section describes historical buildings, structures and objects above the ground. In 1998, the South Berwick Town Council commissioned an architectural historian to initiate an historical building survey of the downtown. A survey of approximately 140 downtown properties was begun. Buildings were photographed and described by an expert; research and documentation now needs to be completed. So far, approximately 100 downtown buildings were noted as potential components of a National Register District. Approximately 20 were found to potentially merit individual listing on the National Register of Historic Places.

The National Register of Historic Places, administered by the National Park Service, is a listing of those buildings, districts, structures, objects and sites deemed worthy of preservation for their historical, cultural or archaeological significance. The main benefits to owning a site listed on the National Register are prestige and community recognition. Listing does not confer legal obligations on the property owner. Certain buildings may qualify for a 25 percent investment tax credit; to qualify, a building must be income-producing, depreciable and a "certified" historic structure. Structures on the National Register are also given a limited amount of protection from alteration or demolition resulting from a federal project.

South Berwick properties now listed on the National Register of Historic Places include the c. 1785 Jonathan Hamilton House on Vaughan's Lane, the 1774 Sarah Orne Jewett House on Main Street, the c. 1854 Jewett Eastman House on Portland Street, the c. 1830 Counting House on Main and Liberty Streets, the 1853 Conway Junction Railroad Turntable site on Route 236 at Fife's Lane; the 1870 Cummings Mill at Norton Street and Railroad Avenue. The Berwick

Academy campus includes five historic buildings, dated 1791-1894, comprising a National Register District.

In addition to the downtown structures mentioned above, other sites which have been identified for possible listing on the National Register include: the Humphrey Chadbourne site, the Great Works Mill site, the Leigh's Mill House (Vine Street), the General Goodwin House (Oldfields Road), the Judge Benjamin Chadbourne House (Liberty Street) and the Balancing Rock.

Beyond these measures, the Town presently lacks a comprehensive inventory of its historic resources, and a basic strategy for protecting them. There is a risk that sites could be destroyed unintentionally through neglect, or perhaps through new development or renovation of existing buildings without regard to their historic character. The greatest concentration of historically significant structures is in the downtown, where economic stresses and high traffic make them vulnerable. The locally designated historic district and associated zoning ordinance provide limited protection of some resources there. Other significant resources are not protected, or even documented. Many historically significant areas lie along rivers, where development pressures will be high in the coming years.

A complete inventory and a clear policy will clarify the issue of historic preservation for property owners and civic leaders alike. Providing both will allow South Berwick residents to fully realize, enjoy and benefit from these assets.

6. Cultural Resources

South Berwick's cultural assets consist of past and present people, places and events. The Town has many noted artisans, including writers, artists, performers, promoters and supporters of the arts. The quiet rural setting, proximate to the ocean, lakes and streams, mountains, as well as nearby cities lends itself to creativity. The Town currently promotes reading sessions and has summer music performances. The Town plays host to the famous South Berwick Strawberry Festival, which brings in scores of artisans and thousands of visitors. The newly built Marshwood High School has a 600 + seat auditorium and Town Hall has a small stage with seating for about 200. Marshwood Middle School and South Berwick Central School also offer some performance and display spaces. South Berwick Community Center and Recreation Department are active programs, both based at the South Berwick Community Center. The Counting House Museum has a small historic ballroom, and the Old Berwick Historical Society offers year-round lectures and other programs both on and off site.

A proposed library for Agamenticus Road has the potential for an outside amphitheater and will be designed for display space inside. The Jewett Eastman House, the library's current home, has been a community center since the early 1930s and is owned by the Jewett Eastman Memorial Committee, a nonprofit corporation of local volunteers. When planning for the newly developed apartment complex at the Cummings Mill on Norton Street, provisions were

made for a town gazebo. Local businesses have display areas for student artwork as well as local artists.

7. Threats to South Berwick's Historical, Archaeological and Cultural Resources

The most imminent threats facing these resources are development and poor maintenance. New development such as a residential subdivision, commercial and industrial construction, or redevelopment of an existing building or area without regard to historical, archeological and cultural resources threatens their very existence. Simple neglect and inadequate maintenance have resulted in a greater loss of historic architecture than any other cause.

Good information about all of South Berwick's historical resources and how to care for them can prevent their unintentional destruction and provide for their protection to the benefit of the town's future residents.

8. Assessment of Current Protection Measures

The Town of South Berwick has a designated Historic District which is intended to help protect significant historic features in the downtown area. There is potential value in extending the district to include a larger section of the downtown, as well as outside of the downtown to include other priority areas of historical and archaeological importance.

Shoreland protection measures found in both State and local regulations provide limited protection of historical and archeological resources near the Town's rivers and ponds.

K. LAND USE

1. Purpose

This section discusses current and likely future land use patterns in South Berwick. Understanding land use trends is very important in determining South Berwick's ability to absorb future growth. Specifically, this section:

a. summarizes the breakdown of developed and undeveloped land in terms of estimated acreage and location;
b. discusses major changes in South Berwick's land use patterns and how these might affect future land use; and
c. identifies land areas suitable and unsuitable for the growth.

2. Key Findings and Issues

The Town's 1990 Comprehensive Plan states most growth should occur in the village and surrounding area. This picture is rapidly changing. The current development trend indicates the focus of residential growth has been in the rural zones.

South Berwick is a relatively large community, consisting of approximately 21,057 acres (32.9 square miles). The Town's topography, until only recently, was the crucial factor determining its outward growth. A vast amount of its commerce and population is nestled in the southwest corner of town, essentially the village, which revolves around the transportation networks. The river, the early roads, the trains, and eventually the state highways flow through this area. The rural areas to the east and northeast remained rural because they either linked only with the village, or were gravel or poorly maintained roads passing to Wells and York. The opening and upgrading of these roads has allowed for greater and easier access to these areas and beyond. Frontage or suburban sprawl along these rural roads, small subdivisions, and potentially large subdivisions are beginning to dominate this once rural community. The potential for further sprawl and residential growth is tremendous. Previously, the large residential growth spurt seen from the 1980's was due to two large subdivisions located near the village. There were 1,467 residential units in 1980 and 2,262 units by 1990. As of 2000, the total was 2,488. Serious challenges are represented by residential development in rural areas while attaining our community's desire to maintain its rural character and open space.

The Town's downtown has many small commercial enterprises, which cater to specific needs of the community. These include small retail stores, eateries, professional, and service businesses. New Hampshire's lack of a sales and income tax will continue to have a profound effect on South Berwick's ability to attract business. The current industrial zone has seen little activity. Consequently, residential property taxes carry the revenue burden along with these small businesses. The Town may need to explore regional partnerships for developing an industrial base.

Large, full-time commercial farming operations, such as dairy farming, have been replaced by smaller part-time farm operations. Farming activities generally have been on the decline over the past several decades. Timber management for commercial production is not the highest priority for this resource. Both of these activities are directly affected by escalating land values and their subsequent increase in property taxes. Educating landowners to opportunities for maintaining these current use practices is critical in realizing the concepts of open space and rural character.

3. Public Opinion Survey and Community Vision Meeting Results

The 2003 Community Survey results show most residents of South Berwick feel residential growth is too rapid while industrial growth is not fast enough. The majority of surveyed feel the loss of open space and rural character are serious challenges facing South Berwick in the next five years and beyond. The same majority desire limiting growth to areas served by municipal water and sewer. Most respondents wished the Town could stay about as it is and that growth should be concentrated where it is currently. The vast majority of those surveyed strongly encourage more commercial development in specified areas of town. Many of those responding expressed support for open space cluster residential development.

The Community Vision meeting results show a high number of people feel residential growth is one of the most important challenges facing South Berwick. Many indicated that a growth management ordinance would be a useful tool to manage residential growth. Some expressed a need for a commercial development. Many expressed a need for the town vision to be consistent with the zoning ordinance.

4. Historical Perspective

South Berwick consists of approximately 21,057 acres (32.9 square miles). Until fairly recently there was little evidence of sprawl. This is largely due to the continual reinforcement of the traditional development patterns in Town; first, as it occurred before land use regulation and then, as it was reinforced through the Town's Zoning Ordinance. Historically, most development was located near the Town center. The Zoning Ordinance, which concentrated high density growth near the Town center, was implemented before the housing boom of the 1980s and 1990s. Subsequently, sprawl is a more recent phenomenon of the late 1990s to present. The result is an expanding Town center. Rural roads are experiencing frontage development pressures indicative of sprawl. The paving of the North Berwick Road and the opening of Belle Marsh Road are increasing the possibility of development in the most rural areas of town.

5. Residential Development:

As of 2000 there were a total of 2,488 residential units in South Berwick. There were a total of 1,467 units in 1980 and 2,262 units in 1990. This reveals a 67.3 percent

increase or an addition of 1,021 units from 1980 to 2000. (See Section B – Housing - for a more detailed description of housing in South Berwick.)

6. Residential Growth Trends:

The village area has the densest concentration of housing, population, and services. The arrival of the Old Mill and Agamenticus Estates subdivisions in the 1980s established a suburban zone on the fringes of the village area. The areas to the north, east, and southeast of the village are rural areas showing increased frontage sprawl. This is especially true of the Oldfields, Witchtrot, Emery's Bridge, Knight's Pond, and Belle Marsh areas. The primary conservation lands in town are east of Emery's Bridge Road and Witchtrot Road, with the greatest portion of these set within the Mount Agamenticus Conservation Area.

The residential building boom of the last two decades is by far the most conspicuous evidence of land use change in South Berwick. The 1980's saw substantial development in the Old Mill and Agamenticus Estates subdivisions. The Farmgate Condominiums also contributed to the residential development of the area adjacent to the village. The 1990's brought several significant residential projects to South Berwick also.

The past two decades have brought residential growth to the once rural areas of Town. The resulting frontage sprawl is homes occupying two and three acre lots every 300 feet along the roadway. This suburban appearance is relatively new, and differs from the rural character people historically associated with these areas. Most residential development is taking place along existing roadways, because this land is the most convenient to develop. This creates the appearance of more development than there actually is. It also serves to land lock land, valuable natural resources, and open space. Two unpaved roads, Mountain Road and Bennett Lot Road, have also seen a dramatic increase in residential development.

The Town's 1990 Comprehensive Plan states that most growth should occur in the village and surrounding area. This picture is rapidly changing. The Town's growth plan is not working to entirely limit growth to the village area.

7. Commercial Land Use

According to the assessing records, there were 107 parcels of land devoted to commercial use in 2003. This represents about 3.5 percent of the total number of parcels in Town. Nearly all of these commercial uses are located in the village area.

Commercial Development Trends

Between 1991 and 2002, 32 commercial building permits were issued. Most of the commercial growth occurred in the downtown and surrounding village area.

Commercial Agriculture

The nature of agriculture in York County and South Berwick has changed significantly over the past several decades. The lack of data for the Town makes it difficult to quantify how agriculture has changed. However, it is apparent that large, full-time commercial farming operations, such as dairy farming, have been replaced by smaller part-time farm operations. Commercial growers that market vegetables and fruits and/or operate pick-your-own operations and roadside markets are becoming increasingly popular. Other part-time farm operations raise hay and/or have a few poultry and/or livestock.

As of 2003, there were eight parcels classified under the farm tax law in South Berwick with a combined acreage of 134.5 acres. All of the farms are located in either the R-2, R-3, R-4 or R-5 districts.

Commercial Forest Land

The most common commercially valuable forest species found in South Berwick are white pine, hemlock, red oak, and red maple. Many of South Berwick's soils are suitable for growing trees, and there is a significant forest resource; however much of this is left unmanaged.

Non-industrial small woodlot landowners are the primary owners of forestland in South Berwick. Non-industrial forest landowners can have a range of objectives for their forestland, such as wildlife conservation, fuel wood supply, general amenity, recreation, and timber management. Timber management for commercial production may not be the highest priority. Commercial products of the Town's forest resource include firewood, sawlogs, pulpwood and biomass chips.

A number of South Berwick's landowners have placed their forestlands in Tree Growth. The Tree Growth Tax Law allows for the assessment of forestland based on current use rather than market value as long as the land is managed for timber production and remains as forest. In 2003, there were 2,408 acres (67 parcels) listed in Tree Growth. Land classified under the Tree Growth Tax Law constitutes 12.2 percent of the land area in town. The average parcel in Tree Growth was 35.94 acres. Within the past 4 years, 64 acres (3 parcels) have been removed from Tree Growth. In order to remove a parcel from Tree Growth, the land owner must pay a penalty that is based on the assessed value of the property.

8. Industrial Development

South Berwick has very little industrial development. As of 2003, there were only five industrial businesses in Town. These industrial uses are classified as light industrial and are generally located within the village area. The Town has designated an industrial zone south of Marshwood High School on Route 236. All the land within this zone is privately owned, and some portions are being considered for development.

The results of citizen surveys and Town Council initiatives have had the recurring theme that the town needs to spur economic growth and diversify its tax base. Additionally there has been a desire to create local, good paying, quality jobs for future after the shipyard.

The following existing reports were studied and evaluated as a basis for the current effort, "Looking Beyond the Shipyard" Charles S. Colgan PhD, "An Economic Development Strategy for York County: What are the Best Prospects for Future Growth?", Planning Decisions, Inc., "2005 -2006 INDUSTRIAL MARKET REVIEW AND FORECAST", Gregory Hastings, SIOR, NAI The Dunham Group. The town has been participating in the Two State Summit Project, and closely following the Brookings Report, "CHARTING MAINE'S FUTURE". An effort in 2006 to develop an industrial park initiated a targeted market analysis and feasibility study for industrial development in this region. The anticipated growth in the "two-state" market is projected in "The Route 236 Business Park Preliminary Feasibility Study-South Berwick, Maine October 10, 2006", by RKG Associates.

9. Publicly Owned Land/Tax Exempt Land

Tables K-1 thru K-6 display all publicly held land, quasi-public land, property of unknown ownership, and some specific tax exempt parcels. Knowledge of these parcels is helpful for recreation and public facilities planning. Property of unknown ownership represents potential property for the Town to acquire due to unpaid taxes.

Town Owned Land

As of 2003, there were thirteen parcels owned by the Town of South Berwick. The total land owned by the Town is 194.53 acres. The School District owns an additional 72.38 acres.

Table K.1
Town Owned Land

Location	Acres	Use
Route 101	2.4	Town Landing
Main Street	1.9	Municipal Building
Norton Street	0.4	Fire Department, Community Center and Cummings Mill
Front Street	3.1	Town Garage
Main Street	0.23	Park
Liberty Street	4	South Berwick Hydro.
Agamenticus Road	16	Ski Area
Agamenticus Road	2.8	Transfer Station
Agamenticus Road	0.8	Vacant
Knight's Pond Road	102	Town Forest
Off of Bennett Road	22	Vacant
Bennett Road	3.9	Vacant
Agamenticus Road	35	Ballfield

TOTAL	**194.53**

Table K.2.
School Owned Land

Location	Acres	Use
Academy Street	13	Marshwood Junior High School
Main Street	8.4	Central School
Route 236	50.98	Marshwood High School

TOTAL	**72.38**

State Owned Land

As of 2003 there were thirty parcels in South Berwick owned by the State of Maine. The total land owned by the State is 1518.5 acres. Individual parcel sizes range from .1 to 449.5 acres.

Water/Sewer District Land

In 2003 there were 97.64 acres of land in South Berwick owned by the Water/Sewer District comprised of eleven parcels.

Table K.3.
Property of Unknown Ownership

Location	Acres
Route 91	17
Route 91	10
Route 91	23
Route 91	5
Bennett Lot Road	8.8
Route 91	10
Route 91	29
Route 91	5
Route 91	10
Mountain Road	8.5

TOTAL	**126.3**

Table K.4.
Miscellaneous Tax Exempt Land (excluding churches)

Location	Acres	Use
Main Street/Salmon Falls	2.5	Town of Rollinsford - Vacant
Portland Street	1.2	Jewett House
Portland Street	0.05	Memorial Library
Liberty Street	0.09	Counting House
Vaughan's Lane	35	Hamilton House

10. Vacant Land

An examination of vacant land and its location can be used to determine the effectiveness of zoning and, in combination with information on land capabilities, the amount of land available for future development.

Table K.5. compares the amount of vacant land to developed land within each residential zoning district. As would be expected most of the land, 8 percent, within the Village Residential District (VRD) is developed. The percentages of vacant land within the transitional residential and rural residential districts average well above that found in the VRD.

A further examination of developed acreage by zoning district, as shown in Table K.6. below, indicates that zoning appears to have affected the average parcel size of developed acreage.

Table K.5.
Vacant and Developed Land by Residential Zoning District

District	Vacant Acres	% of Total	Developed Acres	% of Total
Village Residential	145	2%	459	8%
Developing Residential	808	8%	409	7%
Transitional Residential	4,961	52%	2,836	52%
Rural Residential	3,649	38%	1,768	32%
TOTALS	**9,563**	**100%**	**5,472**	**100%**

Developed acres include all tracts regardless of size that have at least one structure on them. The category combines larger tracts containing a single dwelling.

Table K.6.
Developed Acreage

Zoning District	Acres	# of Parcels	Average Parcel Size
Village Residential	459	495	0.93
Developing Residential	409	361	1.13
Transitional Residential	2,836	521	5.44
Rural Residential	1,768	144	12.2

11. Impact of Zoning on Land Use

South Berwick's current zoning ordinance impacts the way the Town develops. The village and the surrounding area include small lot sizes and reduced frontage requirements (10,000 square feet and 100 feet of frontage). In rural areas of Town, lot sizes range from two and three acres with 200-300 feet of frontage required. The intent of these requirements was to keep the rural portions of Town rural while providing adequate area for on site water and septic in areas where municipal water and sewer services are not available. These minimally larger lot sizes and frontage requirements in the rural zones have not led to this desired effect, demonstrating a need to consider larger future minimum lot sizes. Development in the rurally zoned areas keeps occurring at a rate not consistent with the goals and strategies of the existing Comprehensive Plan, the previous and present Community Surveys, and the findings from the Community Visioning Meeting January 28, 2003.

The zoning framework is also impacted by the existence of both a separate Water and Sewer District. The plans of these Districts for extending services and boundaries may have directly influenced the way the Town has developed, and will develop in the future.

The following is a list of the Town zoning districts. Several environmental overlay districts are also part of the zoning requirements for the Town, but due to their site specificity they are not shown on the Zoning Map.

Zoning districts.

A. Residential zones:

R1 Village Residential District
R1A Village Residential Growth District
R2 Developing Residential District.
R2A Suburban Growth District
R3 Transitional Residential District
R4 Rural Residential District.
R5 Agamenticus Resource District

B. Business zones:

B1 Central Commercial District
B2 Mixed Use District

C. Industrial zones:

I1 Industrial District
I2 Industrial District

D. Overlay zones:

RP Resource Protection District
SP Shoreland/Slope District
RO Rural Overlay Zone (R4 and R5 Districts)
MFW Minor Freshwater Wetland

The purposes of the land use districts are as follows:

A. Resource Protection District.

To control the use of shoreland and other resource areas while providing maximum protection to the land and water. Such areas include, but are not limited to, wetlands, swamps, marshes, bogs, poorly drained soils, one hundred year floodplains, rivers, unique land forms and significant wildlife habitats.

B. Shoreland Slope District.

(1) To provide maximum protection to land and water resources with controls of use and development of undeveloped shoreland areas.
(2) To minimize expenditures of public monies for flood control projects.
(3) To minimize rescue and relief efforts undertaken at the expense of the general public.
(4) To minimize flood damage to public facilities, such as water mains, sewer lines, streets, roads and bridges.
(5) To protect the storage capacity of floodplains and assure their retention of sufficient floodway area to convey flood flows.
(6) To encourage open space uses, such as agriculture and passive recreation.

C. Rural Overlay District - RO

(1) To allow low density residential housing while retaining the rural residential character of the Town in accordance with the goals and strategies of the Comprehensive Plan, by requiring the preservation of natural buffers strips along existing and proposed roads.

D. Agamenticus Resource District - R5

(1) To protect the "Mt Agamenticus area" in accordance with the goals and strategies of the Comprehensive Plan.
(2) To allow for low density housing, while creating a contiguous area of important natural resource systems of scenic beauty and recreational opportunity.
(3) To minimize and prevent those uses which could prove detrimental to the environment of the Mt. Agamenticus area.

E. Rural Residential District - R4.

(1) To retain the rural residential character of an area of the town by encouraging low density uses and the maximum number of uses, consistent with controlling nuisances and unsafe and unhealthy conditions.
(2) To provide an area where agricultural and conservation uses are encouraged.

F. Transitional Residential District - R3.

(1) To retain the rural residential character of an area of the town by encouraging low density uses and the maximum number of uses, consistent with controlling nuisances and unsafe and unhealthy conditions.
(2) To provide an area where agriculture and conservation uses are encouraged.
(3) To direct growth where it can be planned for the most reasonable use of community services.

G. Developing Residential District - R2.

(1) To provide areas of suburban and medium density development in locations relatively close to the village service area, compatible with existing development.
(2) To direct growth into areas where extension of community services is likely to become economically feasible.

H. Suburban Growth District - R2A. To provide an additional area for future suburban growth contingent upon the provision of water and sewer services.

I. Village Residential District - R1. To provide areas of medium to high density residential development in locations compatible with existing development and in a manner appropriate to the economical provision of community services and utilities.

J. Village Residential Growth District - R1A. To provide an additional area for future village growth contingent upon the provision of water and sewer services.

L. Business and Service District - B2.
(1) To protect residences, residential character and residential amenities.
(2) To provide locations for business and service establishments and mixed use properties consistent with the needs of a growing town for expanded personal and professional services.
(3) To encourage the location of service uses along existing service corridors in a zone where lot sizes permit sufficient parking and amenities necessary for those uses.
(4) To provide a limited area for the establishment of light industries which do not intrude on abutting properties.

M. Central Commercial - B1.

(1) To encourage the location of commercial uses on those lands within the community which are best suited for such development.
(2) To protect the present commercial development from the blight, congestion and inconvenience caused by inappropriate and poorly located development of commercial facilities.
(3) To avoid the economic disadvantage of providing essential services to commercial facilities which would occur if commercial facilities developed in a strip fashion along highways and major thoroughfares.
(4) To provide areas in which the location of public facilities can serve the greatest number of people as economically as possible.
(5) To provide areas for high density residential development in locations compatible with existing development and in a manner appropriate to the economical provision of community services and utilities.

N. Industrial District - I1 & I2.

(1) To promote the location of light industry or high value business where services and transportation facilities presently exist or can reasonably be provided.
(2) To prevent inappropriate juxtaposition of industrial uses and residential uses.
(3) To provide effective siting and controls on those uses which, by virtue of their size or external effect (noise, waste discharge, glare, fumes, dust, smoke, traffic generation and parking areas, etc.) could otherwise create nuisances or unsafe or unhealthy conditions
(4) Eliminate residential use in the I1 zone.
(5) Retain existing mixed-use in the I2 zone.

12. Planning Considerations

Land Use Planning can be used to improve the efficiency of land use, to minimize conflicts between incompatible uses, to reduce or eliminate environmental hazards and to minimize degradation of the environment. This analysis inventories the location and extent of the various land uses, and identifies future land use trends. This information, along with that from the location and capacity of water, sewer, and transportation services and facilities, soil suitability, and other environmental concerns, provides the basis for land use planning.

a. Land Use Development Patterns

More efficient use of land and municipal services and facilities usually consists of: encouraging infill development near village center, and full use of urban areas; concentration of development near water, sewer, and highway systems; and the conservation of open space. It has been, and continues to be South Berwick's policy to encourage growth in the R-1 and R-2 zoning districts in and adjacent to the village (where higher density is allowed), and to limit development in the more rural R-3, R-4, and R-5 districts. The Town is committed to avoiding the problems of development sprawl.

b. Land Use Compatibility

Another goal of land use planning is to assure compatibility of adjacent land uses and reduce or minimize conflicts between incompatible adjacent uses. Current zoning districting in South Berwick attempts to minimize such conflicts by segregating industrial and high volume commercial uses from the residential districts. The public and private schools in South Berwick, when added to the commercial and residential mix, maximize the transportation system during the school year morning and afternoon commute.

13. Projected Land Acreage Needed for Development

A general estimate of the land needed for development between 2000 and 2010 can be made using the dwelling unit projections from the Housing chapter and other expected growth trends. The dwelling unit projections assume 260 additional new year-round homes by 2010. Assuming an average of one acre of land per unit, this would mean 260 additional acres of residential land by the 2010.

This is a very liberal projection. It is more likely that the actual rate of development will be far below this rate. For planning purposes, however, it is better to plan for high growth than to be left unprepared for a faster than expected growth rate.

Commercial development is likely to be sporadic. Given past trends, there may be another 24 units of commercial development by 2010. Most commercial development in South Berwick is expected to be very small scale or expansions of existing uses.

There may also be an increase in conservation land if more properties are placed under conservation easements. This is especially likely if the town actively promotes such measures. There is no way to estimate how many acres would be protected by such easements.

As of 2003, there were 11,445 acres of undeveloped land in South Berwick. There is ample land to accommodate any anticipated development. The challenge is for the town to grow in a way that minimizes sprawl while also limiting any restrictions on how owners might choose to use their land.

14. Future Land Use Plan

As required by the State Planning Office this provides a responsive narrative to accompany the Future Land Use Map. To provide consistency, accuracy, and prevention of redundancy; please refer to the Land Use Section of "Goals and Strategies", and the subsequent narrative of Section K. “Land Use", of this proposed Comprehensive Plan (CP). These referenced sections and the Natural Resource Sections, and certainly others, portray and assert in the best descriptive terms the basis for the accompanying Land Use Map.

In this defined Land Use Map (LUM) the current zoning districts in both description and geographical extent remain the same as the Town's existing Zoning Ordinance and Map as of September 2004. The LUM depicts a change of the R5 and R3 boundary. The R-5 Critical Rural Zone, the Agamenticus Resource District, expands into the R-3 Zone. This expansion is land west from Belle Marsh Road and land south of the centerline of Emery's Bridge Road, in which all these lands are east of Whites Marsh Brook to the York Town line. The residential minimum lot size is increased from 120,000 square feet to 200,000 square feet. The intent is to further implement the goals and strategies inherent to a Critical Rural Zone. Please refer to the noted Land Use Sections for more specific purposes identifiable with the LUM.

Growth Area and Rural Area Classification

The combination of zoning districts constituting the Town's designated Growth Area is: I1, B1, B2, R1, R1A, R2, and R2A. These infill growth development areas are within or are closest to water and sewer connections, and are within the Town's ability to provide services.

The combination of zoning districts constituting the Town's designated Rural Area is: R3, R4, and R5. Districts R4 and R5 are within the Rural Overlay District. As noted in the existing CP dated October 1990, "the plan is for the existing rural areas to remain rural ..." Uncontrolled development in the R5 district detracts from rural character and may be expensive to service, and the 1990 Plan does not address uncontrolled individual lot development not governed by Subdivision or Site Plan regulations.

IT IS IMPERATIVE FOR THE READER TO REFERENCE THE LAND USE AND NATURAL RESOURCE SECTIONS OF THIS COMPREHENSIVE PLAN TO DISCERN THE DESCRIPTIVE NUANCES BETWEEN AND WITHIN THESE DESIGNATED GROWTH AND RURAL AREAS, IN CONJUNCTION WITH THE SOUTH BERWICK ZONING ORDINANCE.

In addition, it must be noted that the Town has reinstated its Planned Growth Ordinance, Chapter 102 to the South Berwick Code as of March 2004. Section 102-1 distinctly provides further intent towards identifying growth and rural management, while providing a basis for the Land Use Map.

The Comprehensive Plan Vision Committee (CPVC), as pursuant to its strategies under Section General A of this proposed Comprehensive Plan, should review Chapter 102 in the context of this Comprehensive Plan and propose strategies, as necessary, to amend it. Congruently a review of Differential Growth Caps for Rural Areas and Growth Areas, and Impact Fee Schedules, is pertinent to this discussion. Their integration into a CPIC review of Chapter 102, and this proposed Comprehensive Plan, would further advance a narrative in support of the Land Use Map.

In the Build Out Analysis conducted by Southern Maine Regional Planning Commission in September 2004, several scenarios were conducted to determine potential future growth. These scenarios analyzed the impact of zoning, soils and other natural resources to identify future capacities.

Please see **Population Projection/Growth Area Memorandum**, by Appledore Engineering, Inc. REVISED January 19, 2007 for Inventory and Analysis of population projections and the designated growth areas to accommodate the anticipated housing need. Please see **Figures 1-9** prepared by Edwards & Kelsey, 1/05/07 that illustrate the Growth Area zoning, limitations and available land for development.

Scenario 1
By maintaining existing zoning with R1, R2, B1, B2 and I1 zones on public sewer, 7810 lots are the maximum feasible if all lots were built at minimum lot size and connected to sewer service where available; without sewer services this drops to 4592 lots. Overall, this scenario yielded 7595 total acres of developable land that could be subdivided.

Scenario 2
By maintaining existing zoning with R1, R2, B1, B2 and I1 zones on public sewer, the total feasible lots are unchanged. Overall this scenario yielded 7860 total acres of developable land that could be subdivided. Thus, the addition of these additional zones on sewer service slightly increases the developable acres, while not changing the total number of potential lots.

Scenario 3
By maintaining existing zoning except that R5 will have a minimum lot size of 200,000 square feet, and designating a portion of the R3 District as R5 with R1, R2, B1, B2 and I1 zones on public sewer, the total feasible lots are unchanged. Overall this scenario yielded 7058 total acres of developable land that could be subdivided. Thus, the addition of these additional zones on sewer service slightly decreases the developable acres, while not changing the total number of potential lots.

Recommendation
The Future Land Use Map shows the results from applying the recommended Scenario 3. This scenario seeks to concentrate development in Designated Growth Area served by public sewer service. By concentrating growth in the R1, R1A, R2, R2A, B1, B2 and I1 districts, land is conserved and infrastructure and maintenance costs are minimized. In addition, by shifting more land into the R5 zone and increasing lot size in that zone, rural lands are subject to less development and opportunities exist to further the goals and strategies identified in the Natural Resources and Land Use sections of this document.

The results of the buildout analysis show that 34 percent of suitable land is currently subdivided and a maximum of 4,652 additional lots are developable under the proposed rules of this plan.

This future land use plan will require amendments to the Zoning Ordinance to change boundaries and to change minimum lot size requirements.

15. Build Out Analysis

Date: October 4, 2004
To: Comprehensive Plan Update Committee
From: Jamie Oman-Saltmarsh
Re: South Berwick Developable Lands Analysis Methodology Report

A developable lands model completed for the South Berwick Comprehensive Plan Update Committee (CPUC) is comprised of three different growth scenarios. Scenario 1 assumes that the existing Zoning District standards and Zoning Map remain in place. Scenario 2 assumes that the existing Zoning District standards and Zoning Map remain in place, except that all lots within the R1, R1A, R2, R2A, B1, B2, and I1 on public sewer. In Scenario 3, the minimum lot sizes for all Zoning Districts remain the same, except that R5 will have a minimum lot size of 200,000 s.f., the Zoning Map will remain the same, except that a portion of the R3 Zoning District will be designated as R5, and all lots within the R1, R1A, R2, R2A, B1, B2, and I1 are on public sewer. The potential build-out on developable lands for each scenario can be compared, which can help determine if the town's regulations and infrastructure is adequate to manage potential future growth.

ESRI's ArcGIS software was used to model the developable lands analysis. Most of the data used for the GIS modeling was retrieved from through the website of the Maine Office of GIS, and the Town of South Berwick. More data sources will be provided in the methodology report below. What follows is the methodology used for the developable lands analysis model:

<u>MAJOR PROCESS STEPS:</u>
Create a map layer showing the location of physical development constraints.
Create a map layer showing the location of lands that are not available or not readily available for development.
Union above map layers to create a development constraints layer and a developable lands layer.
Create a data table to determine the total number of acres on developable land within each zone.
Create a data table to determine the maximum number of lots that could be created, and total acres of remaining land on developable land within each zone is based on several different build-out scenarios.

STEP 1: PHYSICAL CONSTRAINTS

The following map layers were merged together to create the physical constraints layer:

Layer	Source
Streams	Maine Office of GIS
stream buffers (75 ft. buffer)	Maine Office of GIS
River	Maine Office of GIS
River buffers (250 ft. buffer)	Maine Office of GIS
Pond	Maine Office of GIS
Pond buffers (250 ft. buffer)	Maine Office of GIS
Wetlands	Maine Office of GIS
Wetland buffers for wetlands over 10 acres (75 ft. buffer)	Maine Office of GIS
FEMA 100-year floodplains	Maine Office of GIS
Very poorly drained soils (chocorua, saco, vassalboro, waskish, sulfihemists, biddeford, and sebago soils)	Maine Office of GIS and York County Soil and Water Conservation District

STEP 2: LANDS NOT READILY AVAILABLE FOR DEVELOPMENT

The following layers were merged to create the lands not readily available for development layer:

Layer
State owned conservation land
Town owned conservation land
Privately held conservation land (Great Works Land Trust, The Nature Conservancy, and Historic New England)
Permanent conservation easement
South Berwick Water District
Homeowners' Association open space
Town owned recreation land
Homeowners' Association recreation land
Private recreation land
Berwick Academy
Maine School Administrative District 35
South Berwick Sewer District
Large Cemeteries
State Owned Land
Town Owned Land

Source: Town of South Berwick

STEP 3: UNDEVELOPABLE LANDS

The constraints layer from Step 1 and the undevelopable layer from Step 2 are combined to create a development constraints layer. These lands are considered undevelopable.

STEP 4: LAND AVAILABLE FOR DEVELOPMENT

To determine how much land is available for development within each zone the following items were considered:

1. Determine the number of acres per zone
2. The number of existing lots per zone based on information from the South Berwick Tax Assessor.
3. The total number of undevelopable acres per zone.
4. The total number of developable acres per zone.
5. The total number of acres per zone with soil types considered poorly drained and somewhat poorly drained (brayton, raynham, rumney, buxton, scantic, and naumburg soils types), and are located within the developable land layer.
6. The total number of acres per zone with soils types considered excessively drained, well drained and moderately well-drained (podunk, scio, elmwood, crognan, marlow, herman, madawaska, peru, ondawa, adams, colton, allagash, skerry, lyman, pits, and urban land soils types), and are located within the developable land layer.
7. The total number of acres per zone with soils types that have slopes greater than 25%.
8. Add the values derived in steps 5-7 above to determine the total suitable acres.

BUILD-OUT SCENARIOS:

Given certain assumptions and variables, the developable lands analysis determines the total number of possible buildable lots within South Berwick. Different results can be achieved by changing parameters which makes it possible to compare the effects that those changes may have on residential growth. The following three build-out scenarios were created:

Scenario 1 –

1. The total number of lots with the current Zoning Ordinance minimum lot size requirement
2. Current Zoning Districts based on the current Zoning Map
3. All lots within the R1, R2 (the south portion only), B1, B2, and I1 on public sewer.

Scenario 2 –

1. The total number of lots with the current Zoning Ordinance minimum lot size requirements

2. Current Zoning Districts based on the current Zoning Map
3. All lots within the R1, R1A, R2, R2A, B1, B2, and I1 on public sewer.

Scenario 3 –

1. The total number of lots with the current Zoning Ordinance minimum lot size requirements except that R5 will have a minimum lot size of 200,000 s.f.
2. Current Zoning Districts based on the current Zoning Map except that a portion of the R3 Zoning District will be designated as R5
3. All lots within the R1, R1A, R2, R2A, B1, B2, and I1 on public sewer.

The following assumptions were made in the build-out scenarios:

1. B1 Zone is the same minimum lot size as B2
2. Soil types Pg and Ur don't match any listed soil type. Together they account for 72 acres, and are included in the "excessively drained, well drained and moderately well-drained soil category".
3. Lots with existing multi-family dwellings (2 or more living units per lot) are on lots that are the minimum lot size for that Zone for each dwelling unit.
4. A comparison of acreage amounts for different layers, or from data generated based on different layers, will not necessarily match due to discrepancies in digitizing and data projections.
5. In Scenario 1 the R2 Zone was split into two areas: R2-North and R2-South. The Tax Assessor can only provide the number of parcels for the R2 Zone as a whole. ArcGis was used to determine the number of existing parcels in the R2-North and R2-South zones - 87 and 181 respectively.
6. In Scenario 3 the R3 and R5 Zone boundaries were changed. Since the Tax Assessor can't provide the number of parcels for the modified R3 and R5 Zones, ArcGis was used to determine the number of existing parcels in those zones - 751 and 391 respectively.
7. The size of existing lots is the minimum lot size for that Zone.
8. New lots will be created at the minimum lot size for that Zone.
9. Calculations for how many acres are remaining for future development on developable land do not account for land for public infrastructure.

<u>Scenario 1</u>

1. Complete all steps listed in STEPS 1-4.
2. Calculate and input the total number of acres in the developable land layer that have slopes greater than 25%. In the R1, R2 (the south portion only), B1, B2, and I1 Zoning Districts, reduce the acreage amount by 75% to reflect the amount of land that may be included as suitable land for those soil types when on public sewer. In the remaining Zoning Districts no acreage amount can be considered as suitable land when not on public sewer.
3. Calculate and input the total number of acres in the developable land layer that have soil types that are considered poorly drained and somewhat poorly drained. In the

R1, R2 (the south portion only), B1, B2, and I1 Zoning Districts, reduce the acreage amount by 50% to reflect the amount of land that may be included as suitable land for those soil types when on public sewer. In the remaining Zoning Districts, reduce the acreage amount by 75% to reflect the amount of land that may be included as suitable land for those soil types when not on public sewer.

4. Calculate and input the total number of acres in the developable land layer that have soil types that are considered excessively drained, well drained and moderately well drained. All acreage amounts with these soil types can be included as suitable land either on or not on public sewer.
5. Calculate and input the acreage amounts from steps 2-4 above to get the total acreage amount of suitable in each Zoning District on public sewer, which is the R1, R2 (the south portion only), B1, B2, and I1 Zoning Districts. Calculate and input the acreage amounts from steps 2-4 above to get the total acreage amount of suitable land in all remaining Zoning Districts that are not on public sewer.
6. Input the minimum lot size on public sewer in the R1, R2 (the south portion only), B1, B2, and I1 Zoning Districts. Input the minimum lot size not on public sewer for the remaining Zoning Districts.
7. Based on the data calculated in steps 5 and 6 above, calculate and input the maximum number of lots that can be on suitable land if all lots were the minimum lot size on public sewer in the R1, R2 (the south portion only), B1, B2, and I1 Zoning Districts. Based on the data calculated in steps 5 and 6 above, calculate and input the maximum number of lots that can be on suitable land not if all lots were the minimum lot size on public sewer for the remaining Zoning Districts. The resulting data is the maximum number of lots that can be on suitable land if all lots were the minimum lot size.
8. Calculate and input the number of existing lots in each Zoning District.
9. Subtract the number of existing lots in each Zoning District (from step 8) from the maximum number of lots that can be on suitable land if all lots were the minimum lot size (from step 7). The result is the potential number of additional lots that can be created in each Zoning District on suitable land at the minimum lot size.
10. Calculate and input the percent of suitable land currently subdivided, and the percent of land that remains to be subdivided. This final calculation is an indication of how much land within the Zoning District is potentially subdividable on developable land.
11. Calculate and input the total number of acres of suitable land that has the potential to be subdivided on developable land at the minimum lot size.

<u>Scenario 2</u>

1. Complete all steps listed in STEPS 1-4.
2. Calculate and input the total number of acres in the developable land layer that have slopes greater than 25%. In the R1, R1A, R2, R2A, B1, B2, and I1 Zoning Districts, reduce the acreage amount by 75% to reflect the amount of land that may be included as suitable land for those soil types when on public sewer. In the remaining

Zoning Districts no acreage amount can be considered as suitable land when not on public sewer.

3. Calculate and input the total number of acres in the developable land layer that have soil types that are considered poorly drained and somewhat poorly drained. In the R1, R1A, R2, R2A, B1, B2, and I1 Zoning Districts, reduce the acreage amount by 50% to reflect the amount of land that may be included as suitable land for those soil types when on public sewer. In the remaining Zoning Districts, reduce the acreage amount by 75% to reflect the amount of land that may be included as suitable land for those soil types when not on public sewer.
4. Calculate and input the total number of acres in the developable land layer that have soil types that are considered excessively drained, well drained and moderately well drained. All acreage amounts with these soil types can be included as suitable land either on or not on public sewer.
5. Calculate and input the acreage amounts from steps 2-4 above to get the total acreage amount of suitable in each Zoning District on public sewer, which is the R1, R1A, R2, R2A, B1, B2, and I1 Zoning Districts. Calculate and input the acreage amounts from steps 2-4 above to get the total acreage amount of suitable land in all remaining Zoning Districts that are not on public sewer.
6. Input the minimum lot size on public sewer in the R1, R1A, R2, R2A, and I1 Zoning Districts. Input the minimum lot size not on public sewer for the remaining Zoning Districts.
7. Based on the data calculated in steps 5 and 6 above, calculate and input the maximum number of lots that can be on suitable land if all lots were the minimum lot size on public sewer in the R1, R1A, R2, R2A, B1, B2, and I1 Zoning Districts. Based on the data calculated in steps 5 and 6 above, calculate and input the maximum number of lots that can be on suitable land not if all lots were the minimum lot size on public sewer for the remaining Zoning Districts. The resulting data is the maximum number of lots that can be on suitable land if all lots were the minimum lot size.
8. Calculate and input the number of existing lots in each Zoning District.
9. Subtract the number of existing lots in each Zoning District (from step 8) from the maximum number of lots that can be on suitable land if all lots were the minimum lot size (from step 7). The result is the potential number of additional lots that can be created in each Zoning District on suitable land at the minimum lot size.
10. Calculate and input the percent of suitable land currently subdivided, and the percent of land that remains to be subdivided. This final calculation is an indication of how much land within the Zoning District is potentially subdividable on developable land.
11. Calculate and input the total number of acres of suitable land that has the potential to be subdivided on developable land at the minimum lot size.

Scenario 3

1. Change the Zoning Map to remove 1,885 acres from R3 Zone and add it to the R5 Zone.
2. Change the minimum lot size for the R5 Zone to 200,000 s.f.
3. Complete all of the steps in Scenario 2 above.

MAPS

Map K.1 Lands Not Readily Available For Development
Map K.2 Future Land Use Map

Appendix C

MEMORANDUM

Date: September 28, 2006
REVISED December 14, 2006
REVISED January 5, 2007 (JLF)
REVISED January 19, 2007 (JMM)

To: James Fisk, Director of Planning and Economic Development
Town of South Berwick

From: Jack Mettee, AICP
Appledore Engineering, Inc.

Re: South Berwick Comprehensive Plan
Population Projection/Growth Area
AEI/2191

The purpose of this memo is to address Inconsistency 1. in the draft Comprehensive Plan for South Berwick, January 5, 2006 as identified in the Maine State Planning Office (SPO) in its *Comprehensive Plan Consistency Review Letter* to the Town of South Berwick dated May 12, 2006.

This inconsistency was stated as follows:

> The land use plan must have an appropriately sized growth area for the planning period.
>
> Growth areas must encourage compact development.

The Consistency Review Letter suggests the following recommendation for addressing this inconsistency.

Recommendation 1

A. Planning Period/Revised Population Projections

The Review Letter indicated that it was necessary to use the planning period of 2005 to 2015 instead of 2010. This revised planning horizon will be applied to the chapter discussion on future land use and in the discussion for projected land acreage needed for development.

The following discussion will address population projections to 2015, the housing demand to 2015 and the land acreage needed to accommodate the projected demand.

Population Projections

In the SPO review letter under *Inconsistency 1, A. Planning Period*, it was recommended that the draft Comprehensive Plan use population projections from 2000-2015, instead of the current projections from 2000 to 2010.

The attached Table A.6 includes the revised population projections to 2015. Projections from the surrounding towns and York County have also been included to provide a regional context for the projections. As noted in the table, these projections are derived from the SPO Census Data, which have been updated since the original table was prepared for the draft Comprehensive Plan.

As stated in the draft plan in the Population Chapter under Section 6, Projected Population, South Berwick and all of York County will continue to grow through 2015. This section should be modified to include the following:

Based on the current data South Berwick has a current population of 7,436 and is expected to have a population of 8,189 by 2010 and a population of 8,946 by 2015. This change represents a 34.10% increase from 2000 to 2015 and also represents the highest increase in comparison with surrounding communities, where Kittery is expected to have a decrease in population and Berwick is expected to have over a 33% increase.

Table A.6--Population Projections

	1990	2000	2005	2010	2015	% Change 2000 - 2005	% Change 2000 - 2015
Berwick	5,995	6,353	7,072	7,777	8,486	11.32%	33.57%
Eliot	5,329	5,954	6,344	6,683	6,990	6.55%	17.40%
Kittery	9,372	9,543	9,119	8,471	7,640	-4.44%	-19.94%
North Berwick	3,793	4,293	4,753	5,201	5,648	10.71%	31.56%
South Berwick	**5,906**	**6,671**	**7,436**	**8,189**	**8,946**	**11.47%**	**34.10%**
York County	165,220	186,742	201,199	214,344	226,757	7.74%	21.43%
Maine	1,231,719	1,277,284	1,284,470	1,372,095	1,419,500	56.00%	11.13%

Source: Maine State Planning Office, Census Data Revised

Housing Demand

In the draft plan in the Housing Section, Table C.13, it was determined that an additional 257 units were projected from the period 2000 to the period 2010. In the Land Use section of the plan this figure was rounded to 260 additional new year-round homes by 2010. See Subsection 13, Projected Land Acreage Needed for Development. Based on the Maine SPO data base the number of households in South Berwick is expected to reach 2,850 units by 2015 or an additional 447 units as shown on the revised Table C.13.

Table C.13.

Projected Year-Round Occupied Dwelling Units Demand 2000 - 2015

	2000 (Census)	2010 (Projected)	2015 (Projected)	Change 2000-2015
Population	6,671	7,320	8,946	2,275
Number of Households	2,403	2,660	2,850	447
Population Residing in Households	6,635	7,283	8,946	2311
Avg. Household Size	2.76	2.60	3.14	+0.38
Occupied Dwelling Units	2,403	2,801	2,850	447

Source: All 2000 data from U.S. Census, 2015 population projection from Maine State Planning Office

During the period 2000-2005 there were 244 single-family building permits issued based on South Berwick Building Department records. By 2006 this total had reached 265 units as shown on the Building Permit Table below. Consequently, the demand for additional residential units to the year 2015 is reduced by this amount and is now approximately 203 units. However, this figure indicates that over half of the projected units were issued permits in the first five (5) years of the 15 year projection time period or more than half the projected units. At this rate the 447 units would be exceeded by 2010. Even if this rate does not continue, it would appear that the actual number of units by 2015 is likely to exceed the projected number, perhaps reaching as much as 500.

Two other pieces of data seem to bear questioning. First, the household size for 2015 is 3.14 whereas the current census indicates there were 2.76 persons per unit in 2000 with a projected household size projected at 2.60 for 2010. The trend would appear to be for smaller household sizes generally, therefore an increase to 3.14 appears to be unlikely.

Second, the 2010 figure for Occupied Dwelling Units (2,801) differs from the figure given for the Number of Households (2660). For both the 2000 and 2015 timeframes, the numbers for these categories are the same. Inquiries with both the regional and state planning agencies have not resulted in an explanation for either of these figures.

Building Permit Table

Permit History	2000	2001	2002	2003	2004	2005	2006
Single Family Homes	51	40	46	35	41	31	21
Cumulative Total		91	137	172	213	244	265

Source: Town of South Berwick Building Department

B. Compact Development

The following discussion will identify projected land needed for residential growth and how it can be accommodated within the proposed Growth Area as shown on the attached figure. It will also clarify the need for size of the industrial district along Route 236.

Projected Land Acreage Needed for Residential Growth

An estimate of the land acreage needed for residential development between 2000 and 2015 can be based on the dwelling unit projections cited above. If we assume that 203 new units are needed by 2015, the zoning density requirement can be applied to this figure to determine the number acres that are required.

The most likely scenario is for the residential growth to occur in the R2 and R2A zones that are located adjacent to the village area. These zones have 981 acres and 988 acres, respectively. Some of this acreage is already developed and more will be subject to building constraints such as wetland soils or steep slopes. Even given these qualifications, it would appear that the projected residential growth could be accommodated in these areas. For example, assuming a ratio of one unit per acre (based on current dimensional requirements) in the R2 zone, a minimum of 203 buildable additional acres is required. Assuming an additional 25% of the land is dedicated to roads and other publicly-owned infrastructure approximately 254 total acres would be required in the R2 zone, which would appear to be more than enough to accommodate the projected growth. The following discussion provides a more detailed analysis for determining the suitability of proposed growth area to accommodate projected growth.

Future Land Use Plan—Suitability for Residential Growth

In the draft Comprehensive Plan, there is lengthy discussion under subsection 14. Future Land Use Plan that describes the rationale for accommodating the town's future growth. Previous sections in the Land Use chapter provide the data in terms of land availability by potential growth area and the impact of current zoning on future growth. Development location is also influenced by availability of land. The Growth Area accommodates normal buy and hold land cycles. The Southern Maine Regional Planning Commission (SMRPC) provided a build out analysis that accounted for various parameters to determine the potential availability of land for growth. These parameters included such constraints as water body buffers, wetlands and wetland buffers, poorly drained soils and exempt parcels that are in conservation or owned by a utility or governmental entity. About 25% of additional land was removed to accommodate the potential need for new roads or other common facilities that might be required as part of new subdivision. Based on these constraints the amount of available land was determined based on current zoning. The "Community Viz" software used to develop the build out scenario is based on map themes and coverages (such as exempt lands and wetlands). It is not based on parcel coverage that would have allowed the mapping of existing land cover and conditions. Consequently, it appears that SMRPC analysis did not account for existing development, resulting in a large number for available acres for development. Given this situation, a subsequent analysis has been undertaken by Town of South Berwick staff and Edwards and Kelcey, which uses the same approach as the SMRPC, build out analysis, but includes existing development and is based on parcel coverage.

Revised Residential Suitability Analysis

Overall Growth Area

The defined Growth Area includes the following zones: R1, R1A, R2, R2A, B1, B2, I1 and I2, where R stands for residential, B for business and I stands for Industrial. See attached Figure 1 for Growth Area Zoning. These zones are comprised of the following acreages:

R1	*1252*
R1A	*199*
R2	*981*
R2A	*988*
B1 and B2	*111*
I1 & I2	*674*
Total	***4205***

Source: SMRPC

Residential development is no longer permitted in the Industrial 1 (I1) zone, therefore the remaining area for future residential growth is in the I2 Zone which comprises just 165 acres of the 674 acres for the full Industrial District (I1 and I2). That amount is further reduced to 43 acres by existing ownership exemptions, land dedicated to SAD 35 High School, commercial use, and environmental restrictions. Please see Industrial Residential Suitability Analysis *below for further discussion of this area.*

To determine the potential for numbers of residential units by zone, the relevant portion of Table B from the South Berwick Zoning Ordinance is included below. The R2 and R2A zones allow minimal lot sizes of 40,000 SF and 80,000 SF without sewer, the current condition.

TABLE B

DIMENSIONAL REQUIREMENTS

And total acreage in Town for growth areas.

	R1	R1A	**R2**	**R2A**	**B2**	**I2**
RES. MIN LOT SIZE (square feet)	**Village Residential District** 1,252 AC	**Village Residential Growth District** *199 AC*	Developing Residential District *981 AC*	**Suburban Growth District** *988 AC*	**Mixed-Use District** *111 AC including B1*	**Industrial I2** *165 AC*
Without Sewer	40,000	80,000	40,000	80,000	40,000	80,000
With Sewer	10,000	20,000	30,000	40,000	10,000	80,000

Source: South Berwick Zoning Ordinance, SMRP, and South Berwick GIS for acres.

It is assumed that almost all of the projected residential units will be accommodated in the residential zones. The primary area for residential growth can be expected within the R2 and R2A zones as shown on the Growth Area Figure for Zoning, Figure 1 South Berwick Growth Area, Zoning and Figure 5, Principal Growth Area R2 & R2A Zoning.

Much of the remaining growth area—including the B1, B2, R1, and R1A districts—has already been built out and has not been considered as part of the most likely area for future residential growth. There will be opportunities for small infill residential developments in these districts, typically for modest multi-family structures. See Figure 2, Growth Area R1/ R1A Zoning.

The R1 district has a total of 24 parcels that are available for infill development totaling about 178 acres out of a total of approximately 1,200 acres in the district that may be suitable for subdivision. One available parcel is approximately 101 acres and another is 39 acres. See Figure 3, Growth Area R1/ R1A Available Lots. Although both of these parcels would appear to be appropriate for future growth, residential development is problematic. Both have significant constraints to overcome including steep topography (near the town's ski hill), hydric soils, or no access. Furthermore, there has been no indication from the current owners as their future intentions. Because of the issues concerning these properties, they were not included in the suitability analysis for the 2015 horizon. The remaining parcels are much smaller and because they are on water and sewer are more likely to be developed. These parcels could provide for approximately 100 units. See Figure 4, Growth Area R1/ R1A Net Available Lots.

Primary Growth Area

Based on the analysis of the existing Town of South Berwick GIS data base, the primary growth area—the R2 and R2A districts—have approximately 1,969 acres. *See Figure 5, Principal Growth Area R2 & R2A Zoning*. The previous buildout analysis undertaken by the Southern Maine Regional Planning Commission determined that the area was 2,067 acres. The discrepancy can be attributed to the model used by the SMRPC, which was not parcel based. The growth area for R2/R2A of 1,969 acres out of the town total of approximately 20,931 acres represents approximately 10% of the town

Deduction of Hydric Soils and Associated Developed Land

Hydric soils based on the York County Soil Survey of 766 acres are included in these areas, which are predominantly in the northern R2 Zone. The hydric soil area also includes many of the other natural resource constraints including stream buffers, floodplains and slopes greater than 20%. These areas were deducted from the available land leaving approximately 1,203 acres (1,969A-766A=1,203A) in R2 /R2A which are vacant or associated with existing development. Approximately 275 of these acres are committed to existing uses and cannot be further developed. The remaining area of the 1,203 acre piece, that can be subdivided is approximately 928 acres (1203A-275A = 928A) as shown on the attached *Figure 6, Growth Area R2 & R2A, Available Land*.

Deduction of Exempt Lands

Exempt lands (publicly-owned lands, water district lands, non-profit conservation lands, etc.) in the Residential Growth Area constitute approximately 150 acres, which were also removed from the available land pool. The resulting available land is 778 acres (928A-150A).

Deduction of Remaining Natural Resource Constraints

Finally there is approximately 84 acres of natural resource constraint areas not captured in the hydric soil designation, including wetlands in the National Wetland Inventory Survey as well as areas incorporated in the 250' water body buffers/shoreland zone, flood plain, and slopes of 20% and greater. This leaves approximately 694 acres potentially available (778A-84A) as shown in the attached *Figure 7, Principal Growth Area R2 & R2A, Net Available Land.*

Net Available Land

The net available land for development in the Residential Growth Area is approximately 104 acres in R2 and 590 acres in R2A based on each zone's different density requirements or a total of 694 acres. The R2 Zone has a minimum lot size of 40,000 SF or .92 acres. The R2A zone has a minimum lot size of 80,000 SF or 1.83 acres even if the lots are clustered. The 694 suitable acres for development yields 326 lots in the Growth Area (590 R2A acres x 43,560/80,000 x .75 = 241 lots) plus (104 R2 acres x 43,560/40,000 x .75 = 85 lots). This calculation assumes that 25% of this land is set aside for public infrastructure (roads, etc.).

This figure is approximately 27% of the almost 1,199 suitable lots that were projected by the SMRPC build out analysis for these districts. The SMRPC figure appears to be based on land use coverages versus land use parcel information. Based on the projected demand of 203 for residential units, approximately 371 acres would be required for the units plus another 137 for roads for roads, etc. or 508 acres. This demand can easily be accommodated through the year 2015 in the R2A district alone and it is even more certain if the R2 net available land is considered. Consequently, there is more than adequate land available for residential growth, but not an excessive amount.

It would appear that the area defined for residential in the Growth Area meets the test of "having an appropriately sized growth area which would encourage compact development."

Industrial Suitability Analysis

Available Land for Industrial Use

South Berwick's proposed Industrial Growth Area is approximately 674 acres total. *See Figure 8, Available Industrial Land with Constraints*. It is composed of two districts—the I1 which comprises 509 acres along the east side of Maine Route 236 and the I2 comprising 165 acres along the west side of Route 236. Neither of these areas is homogeneous in terms of current use or the quality of the land. Almost half of this area (319 acres) must be excluded from future development because of the existing uses, which include conservation land, the Marshwood Regional High School property and small areas of existing residential use, both detached units and condominiums. Another approximately 50 acres have been identified as wetland with another 140 acres identified as hydric soils that would be marginal for development and may be classified as wetlands. The net area calculation did not include a significant area of very steep slopes on the east side of Route 236. Non-residential uses do not deduct slopes in net area development requirements. Assuming another 50 acres (25% of the remaining land) for necessary roadways to service any industrial development the net area for industrial development is approximately 150 acres or approximately 20% of the total Industrial Zone. Of these acres a number are tied up in land locked parcels, which may problematic for future growth in the 2015 horizon. *See Figure 9, Industrial Area, Net Available Lots.*

Consequently, it would appear that the area defined for industrial activity in the Growth Area meets the test of "having an appropriately sized growth area which would encourage compact development".

Residential Suitability Analysis

For purposes of residential growth in this area, only the I2 allows for residential uses. On the west side of Route 236 approximately 1 acre of slopes, and 31 acres of hydric soils would be removed from the 75 acres of Available Land to provide 43 acres of suitable land for development. Applying this to the 43 suitable acres for development, there is a yield of 17 lots (43I2 acres x 43,560/80,000 x .75 = 17 lots). Again, it would appear that this zone would meet the test of having an "appropriately sized growth area" for residential use.

JMM/maa

Attached Figures

Figure 1 – Growth Area Zoning
Figure 2 – Growth Area R1/R1 A Zoning
Figure 3 – Growth Area R1/R1 A Available Lots
Figure 4 – Growth Area R1/R1 A Net Available Lots
Figure 5 – Principal Growth Area R2/R2A Zoning
Figure 6 – Principal Growth Area R2/R2A Available Lots
Figure 7 – Principal Growth Area R2/R2A Net Available Land
Figure 8 – Industrial Area Constraints
Figure 9 – Industrial Area Available Land

Map K.1

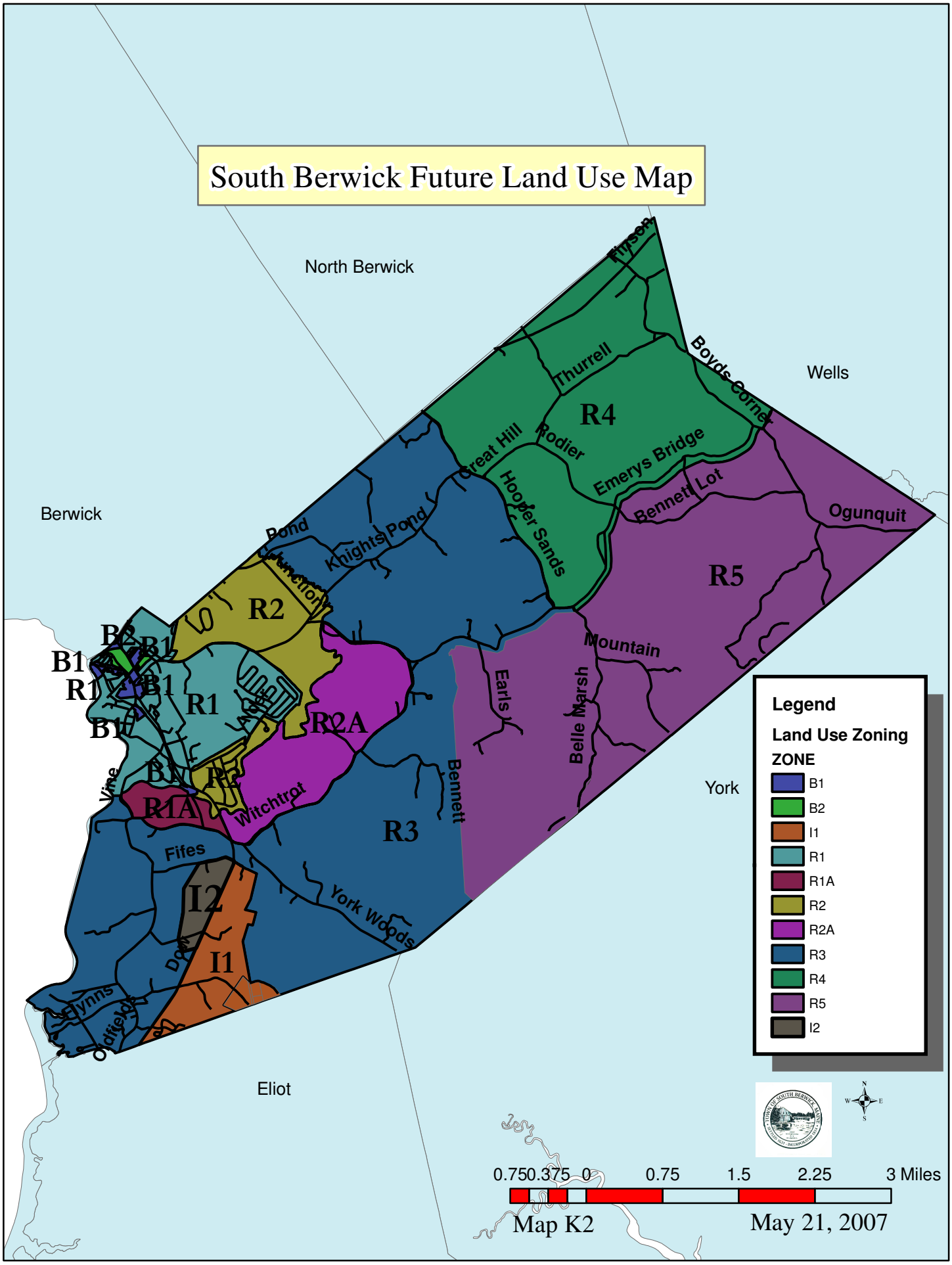
South Berwick

Lands Not Readily Available For Develpment

* Great Works Land Trust, Society for the Preservation of New England Antiquities, and The Nature Conservancy
Sources: Town of South Berwick and Maine Office of GIS

September 9, 2004

SOUTHERN MAINE REGIONAL PLANNING COMMISSION


South Berwick Future Land Use Map
North Berwick
Wells
Berwick
York
Eliot
Thurrell
Boyds Corner
Great Hill
Rodier
Emerys Bridge
Hooper Sands
Bennett Lot
Ogunquit
Pond
Knights Pond
Connector
Mountain
Earls
Belle Marsh
Bennett
Vine
Witchtrot
Fifes
York Woods
Dow
Lynns
Oldfield
R4
R5
R2
R2A
R1
R1A
R3
I2
I1
B1
B2
Legend
Land Use Zoning
ZONE
B1
B2
I1
R1
R1A
R2
R2A
R3
R4
R5
I2
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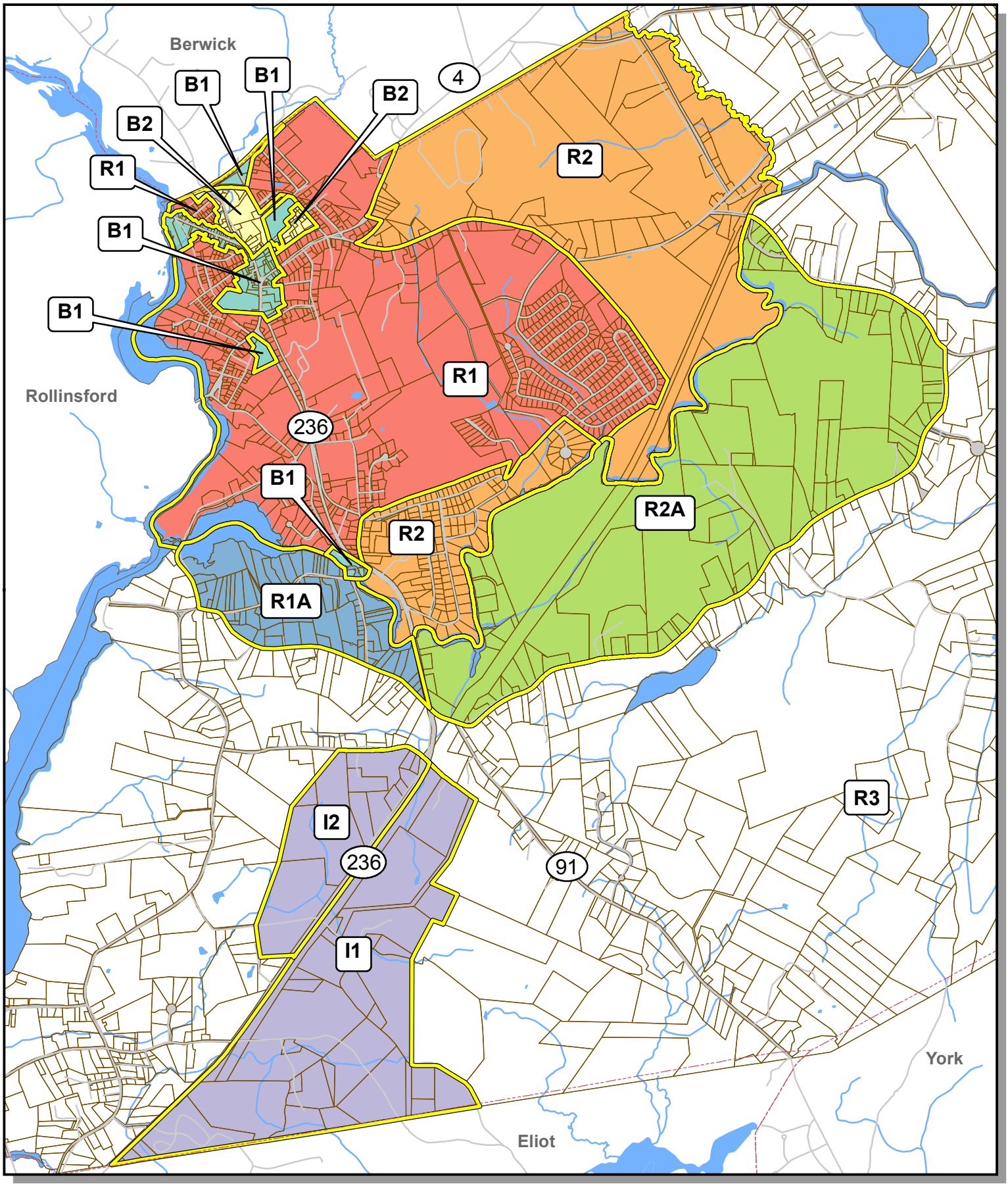
Map K2
May 21, 2007



DRAWN BY: **AML**	DATE: **01/05/2007**
CHECKED BY: **JF**	PROJECT: **060057125**

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ARCHITECTS
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Figure 1 - Growth Area Zoning

Growth Area
Township Boundaries
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.25 0.5 Miles

NORTH

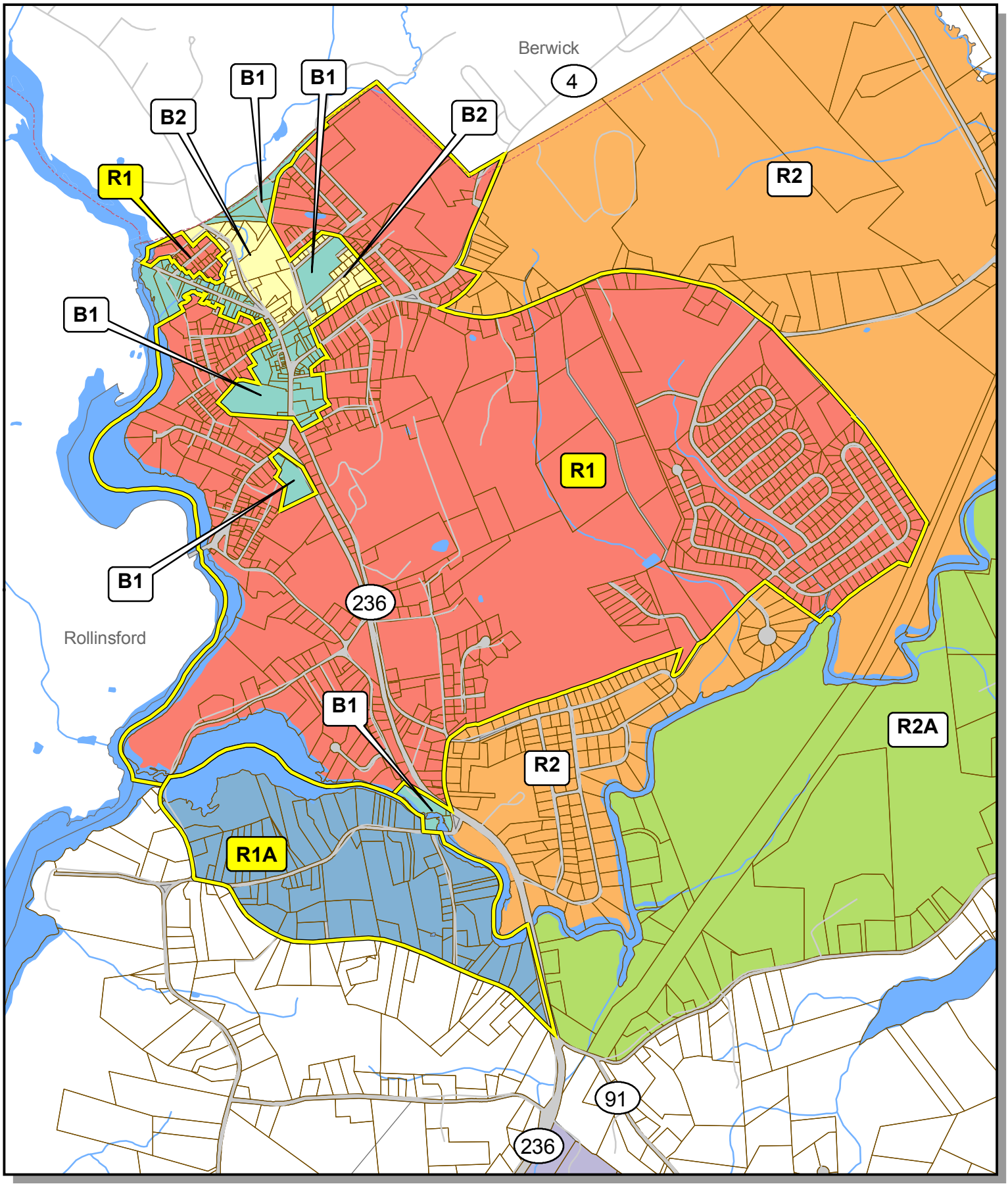

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Figure 2 - Growth Area R1 / R1 A Zoning

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Growth Area R1 / R1A
Township Boundaries
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.25 0.5 Miles

NORTH

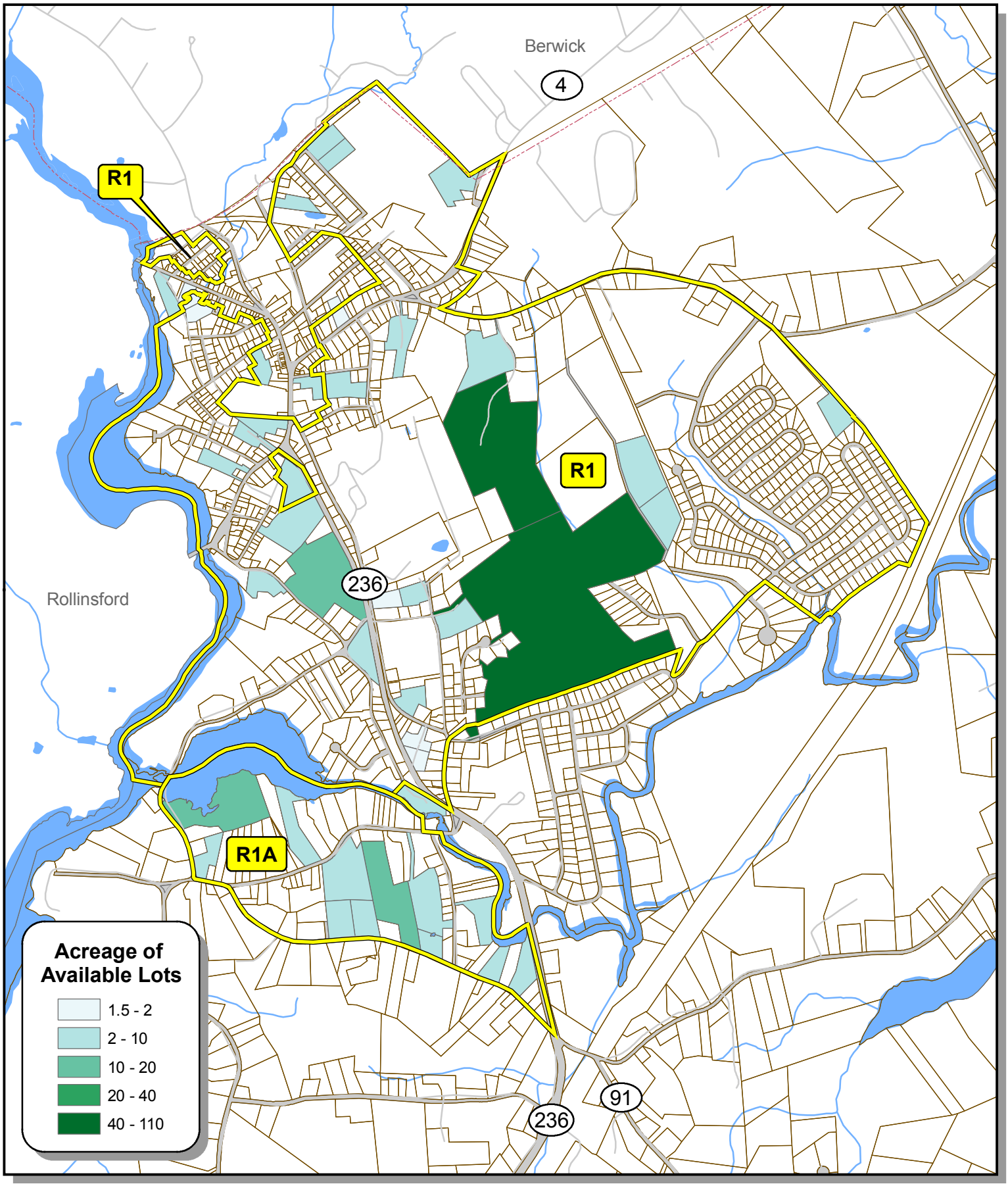

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Figure 3 - Growth Area R1 / R1A Available Lots

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Growth Area R1 / R1A
Township Boundaries
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.25 0.5 Miles

NORTH

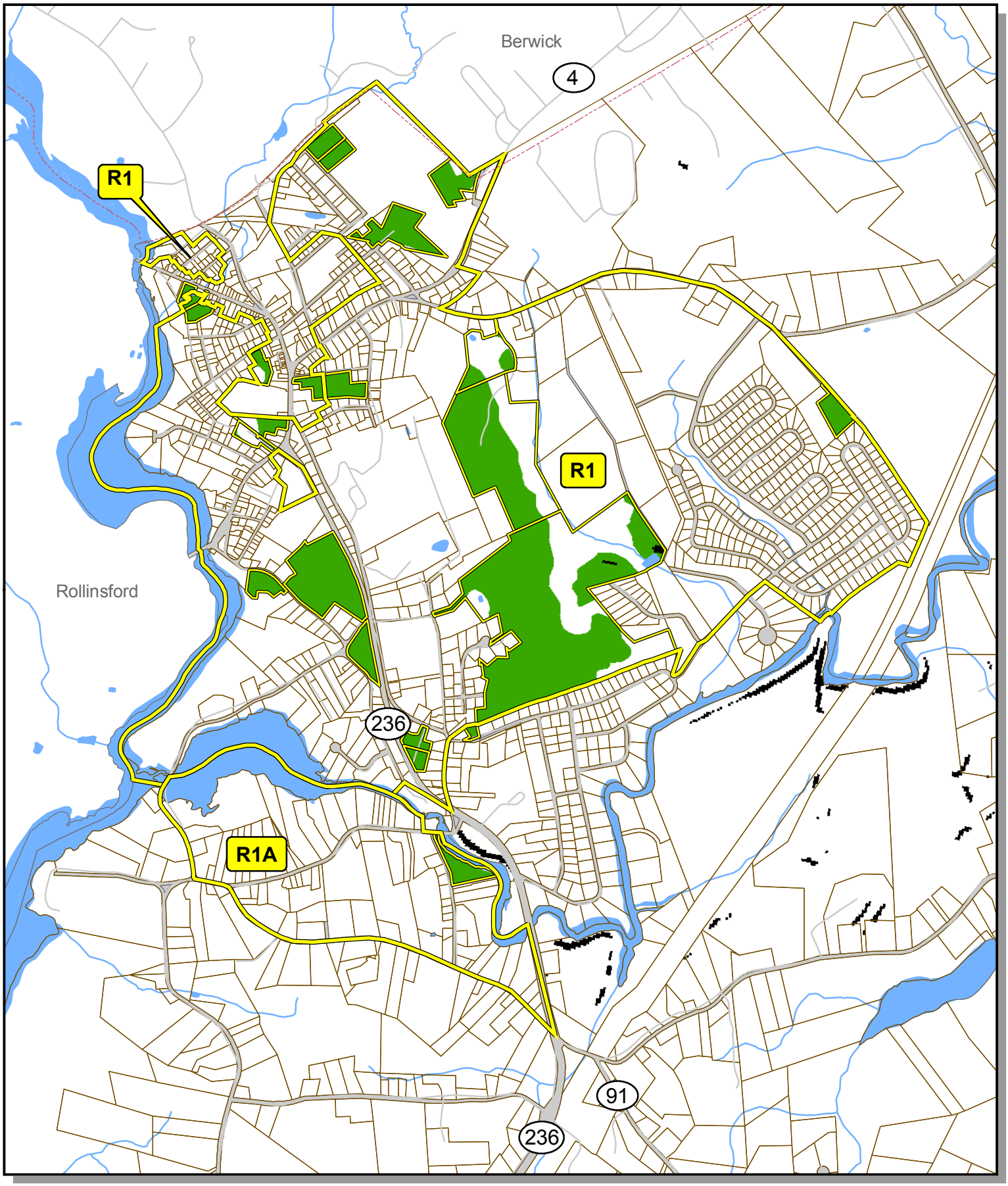

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Figure 4 - Growth Area R1 / R1A Net Available Lots

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Growth Area R1 / R1A
Available Lots
Net Available Land
Slopes > 20 %
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.25 0.5 Miles

NORTH

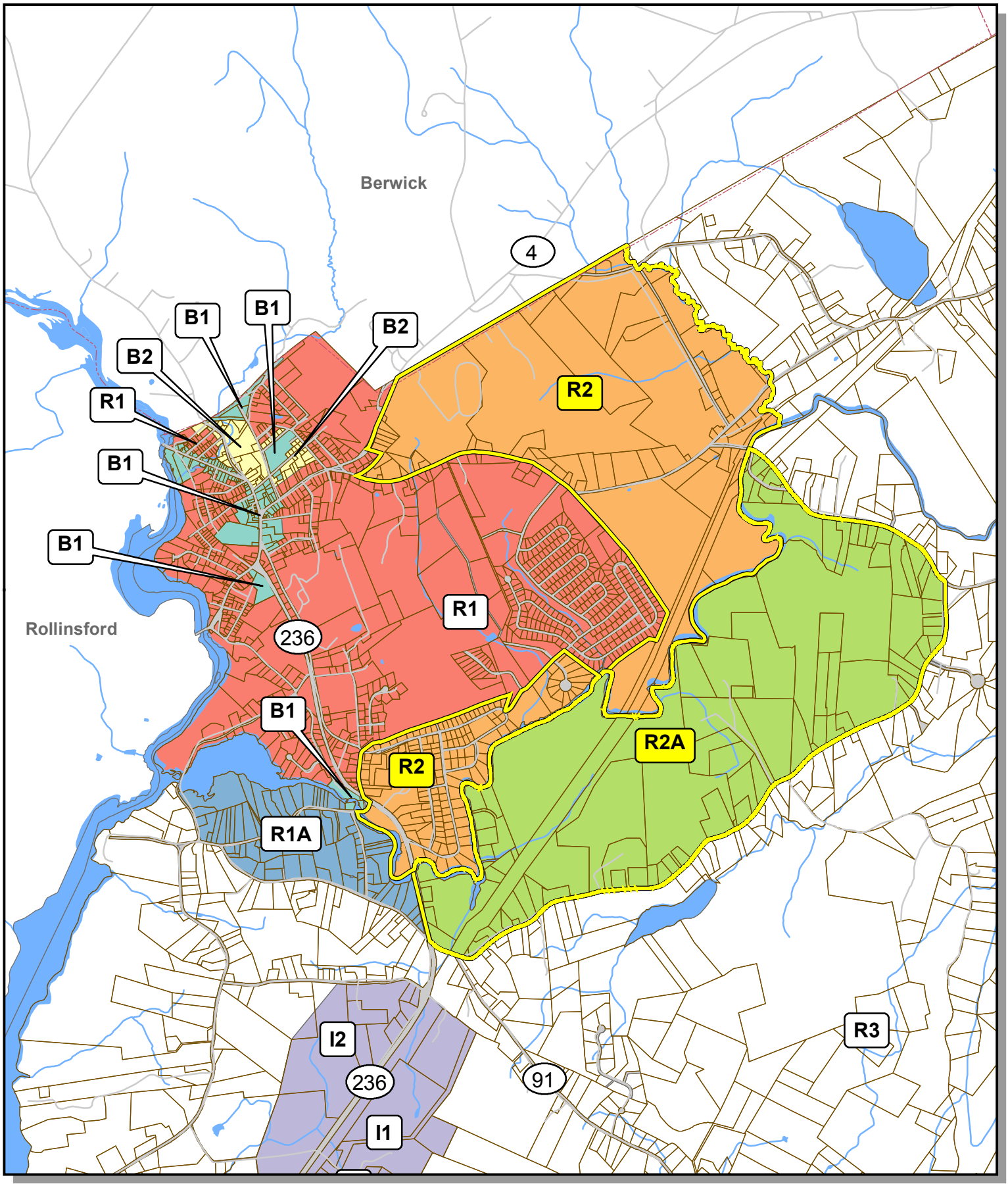

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Figure 5 - Principal Growth Area R2 / R2A Zoning

Growth Area R2 / R2A
Township Boundaries
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.25 0.5 Miles

NORTH

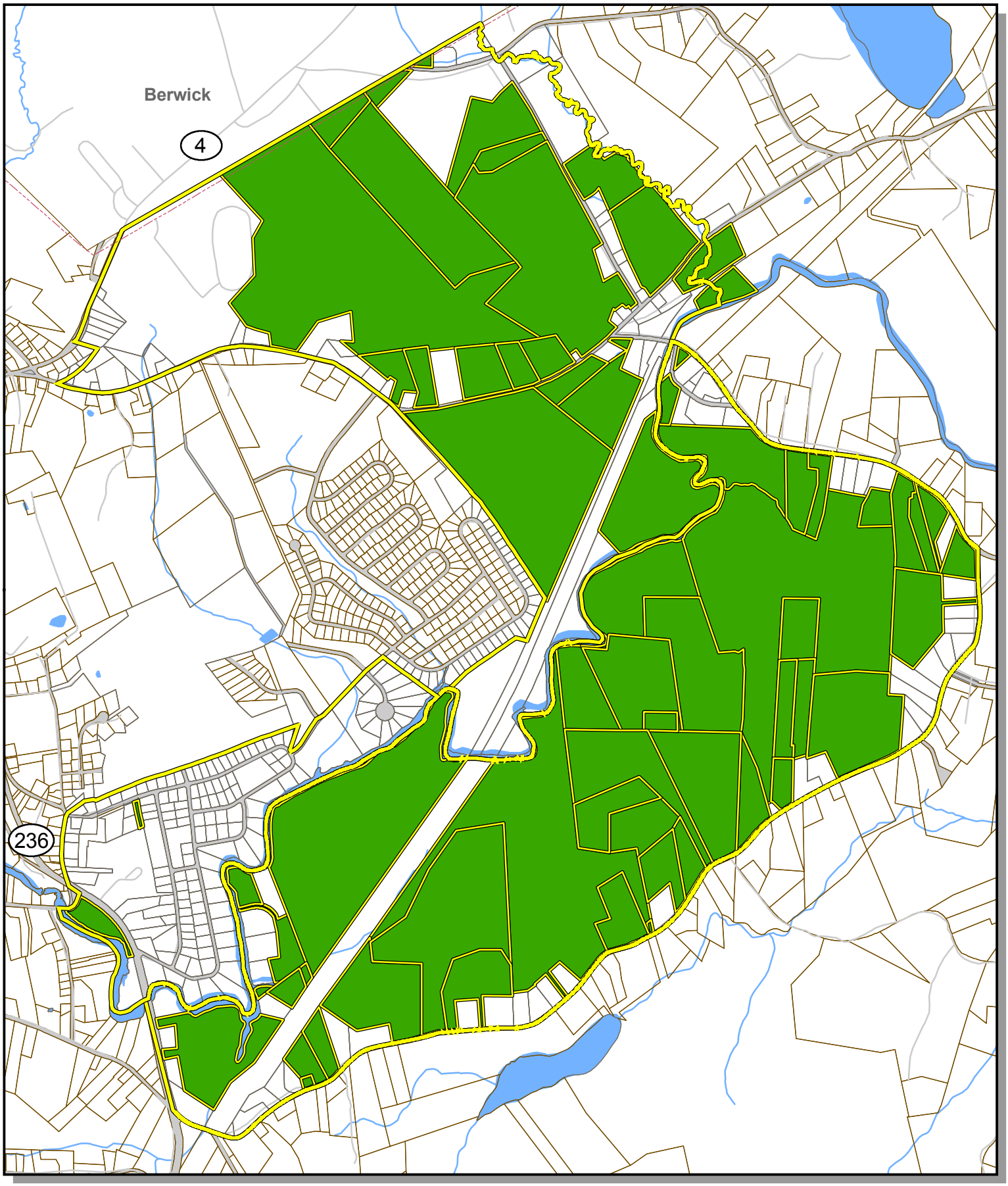

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Figure 6 - Principal Growth Area R2 / R2A Available Lots

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Growth Area R2 / R2A
Available Lots
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.25 0.5 Miles

NORTH

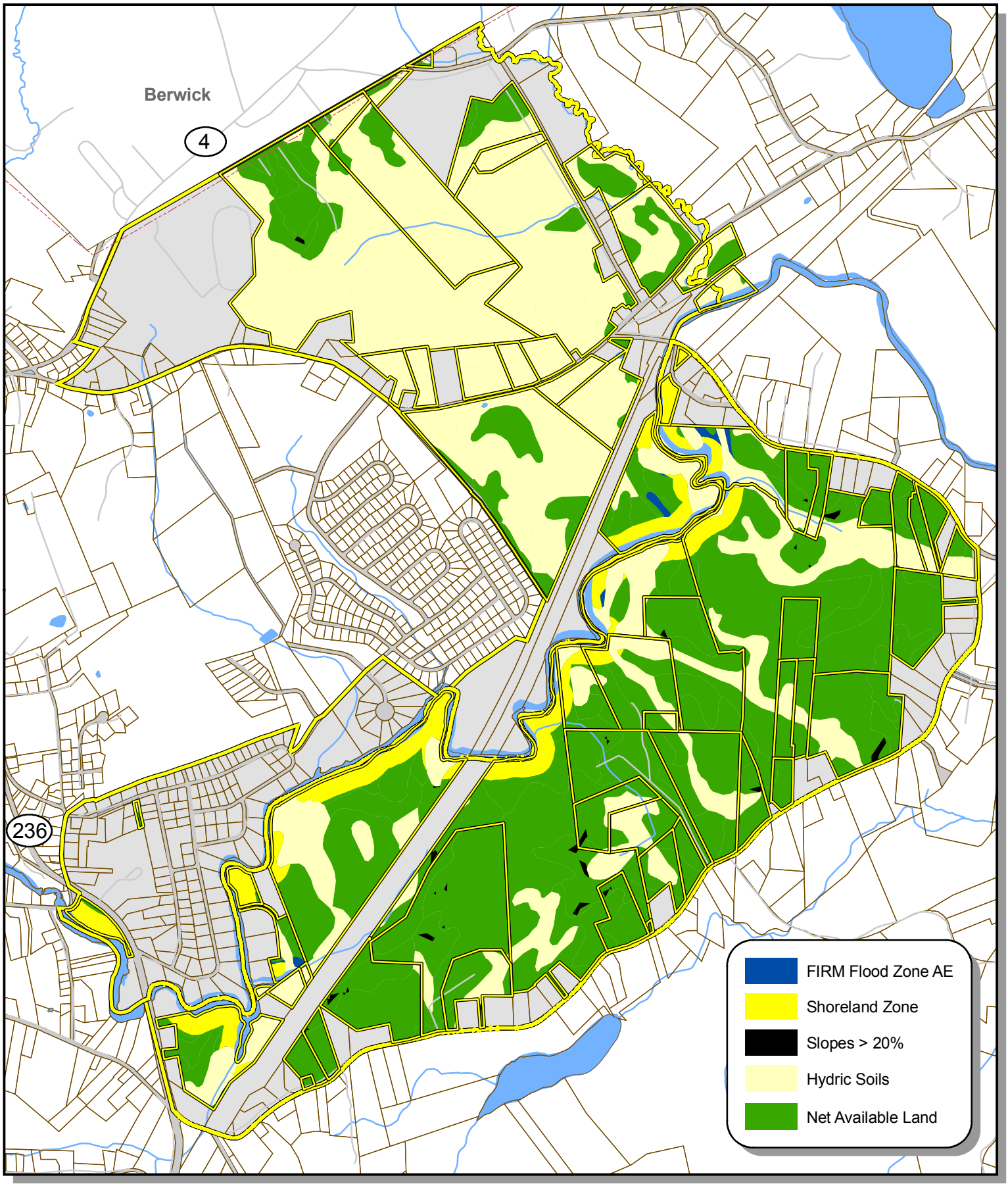

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Figure 7 - Principal Growth Area R2 / R2A Net Available Land

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Growth Area R2 / R2A
Available Lots
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.25 0.5 Miles

NORTH

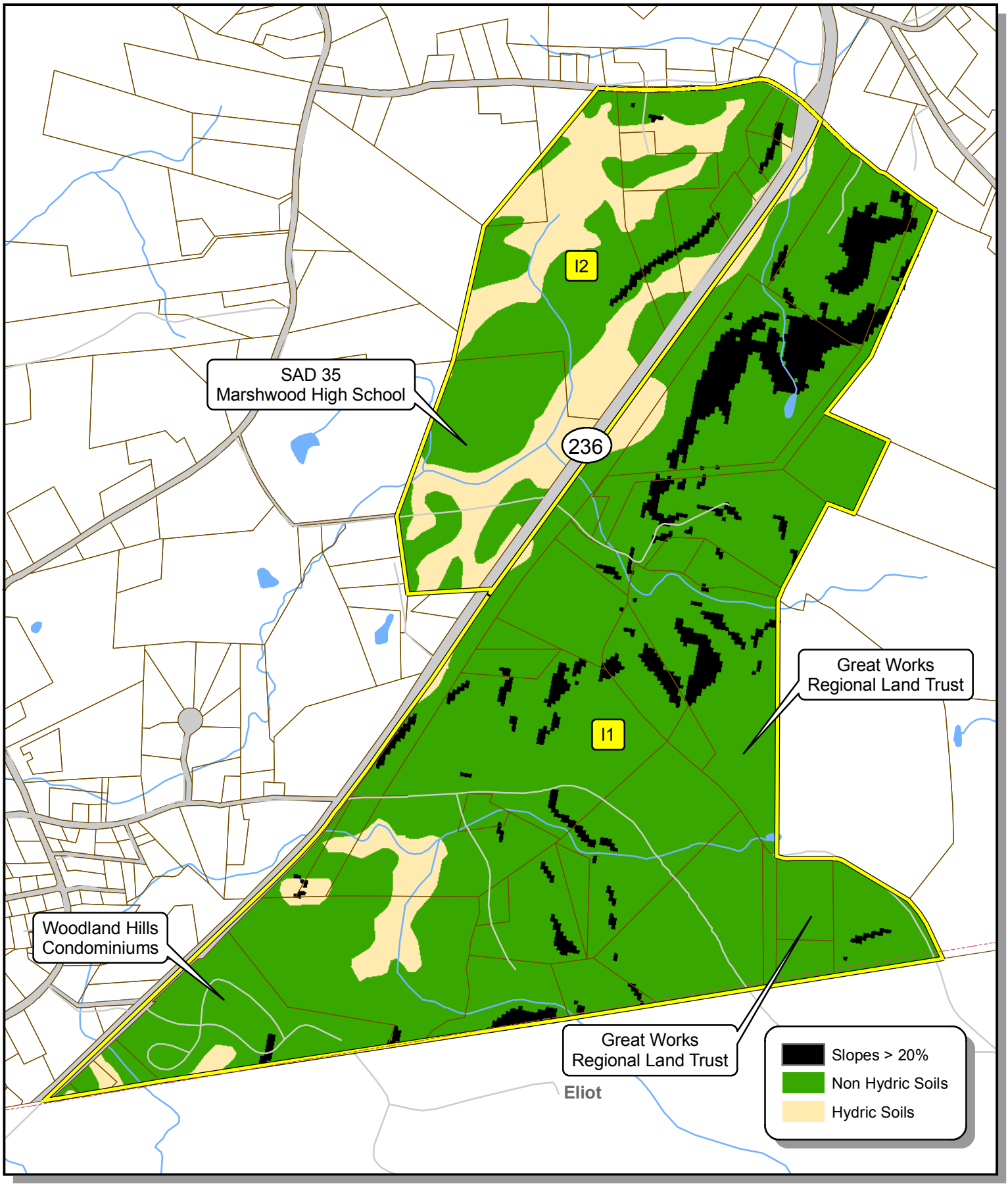

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Figure 8 - Industrial Area Constraints

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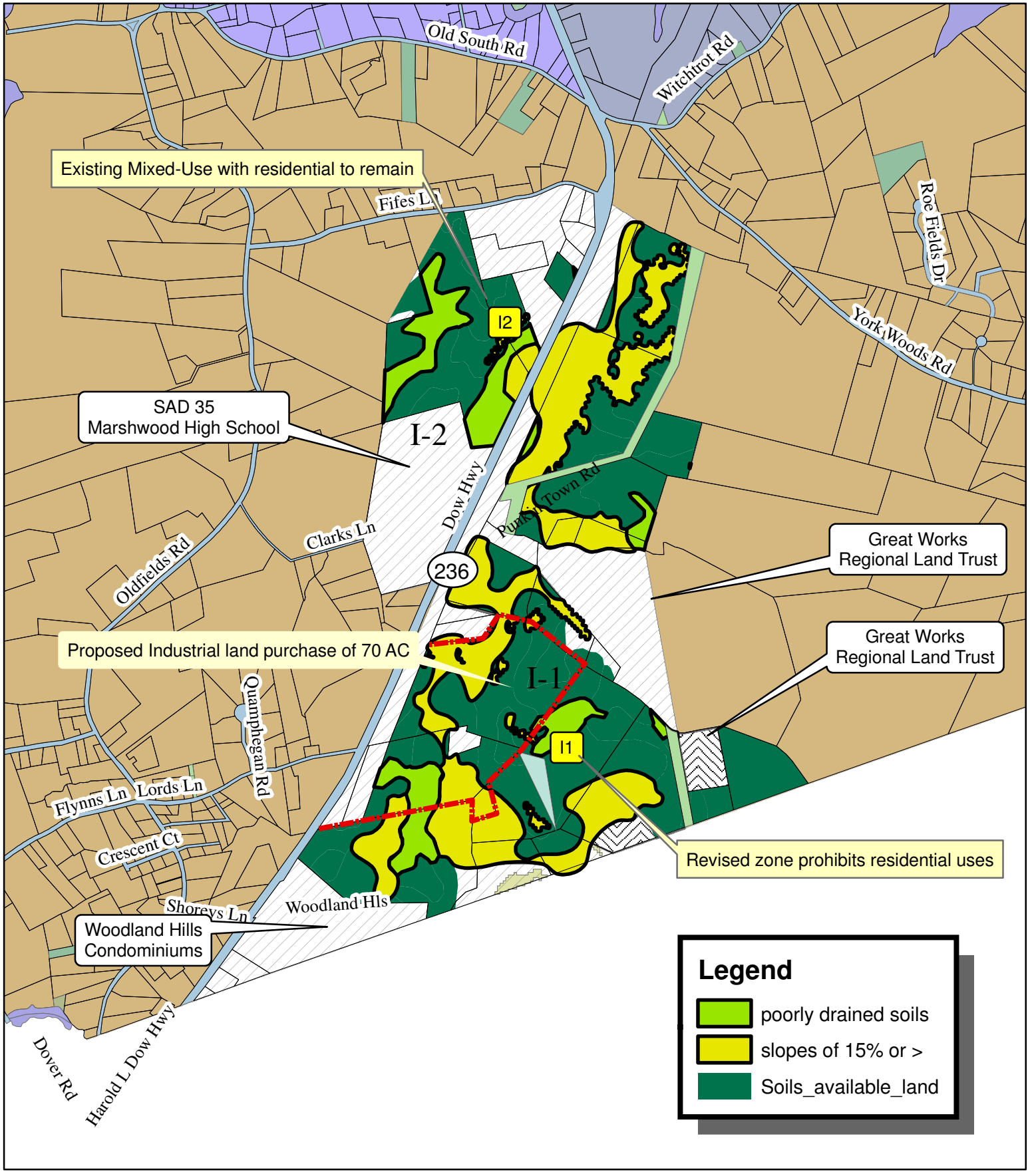
Growth Area I1/I2
Township Boundaries
Lakes, Ponds
Rivers, Streams, Brooks
Roads

0 0.125 0.25 Miles

NORTH



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CHECKED BY: **JF**	PROJECT: **060057125**

Figure 9 - Industrial Area Available Land, rev'd

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0.5 0.25 0 0.5 Miles

N W E S

L. FISCAL CAPACITY

1. Purpose

A comprehensive plan should examine fiscal trends in the town to strive for a stable tax rate to provide essential services to the citizens of South Berwick.

Specifically, this section will:

a. summarize South Berwick's current fiscal conditions;
b. discuss recent revenue and expenditure patterns;
c. predict likely future revenue and expenditure trends; and
d. assess South Berwick's capacity to finance capital expenditures for the next ten years.

2. Key Findings and Issues

South Berwick has a lower tax assessment per capita than most of its immediate neighbors. Property tax assessments and tax spending increased at an after-inflation rate of 25 percent between 1999 and 2002. This was somewhat faster than the York County average.

While expenditures continue to increase, a review of individual budget items between 1999 and 2002 reveals that several did not increase much over the rate of inflation. For example, town roads and bridges and winter road maintenance all had minor increases. Further increases are expected in solid waste. The greatest numerical increase was in education.

3. Public Opinion Survey and Community Vision Meeting Results

About 26 percent of respondents felt that property taxes were a problem, 57 percent felt that they were **not** a problem. There were also some comments about “uneven” assessment practices.

4. Valuations and Tax Assessment

South Berwick’s ability to raise tax revenue is dependent largely on its tax base or valuation. As seen in Table L.1, South Berwick’s valuation increased from approximately $253 million in 1999 to approximately $291 million in 2002. This is an increase of about 15 percent in four years. When these figures are adjusted for inflation, the total change is actually an increase of 7 percent.

There has also been an increase in the property tax burden. The total money raised through property taxes increased from $4,680,013 in 1998 to $6,224,840 in 2002 (as reported by the Maine Bureau of Taxation). This was an increase of 33 percent;

adjusted for inflation, this is an increase of 25 percent. Property tax assessments thus increased at a faster rate than the valuation growth over the four-year period. If property taxes continue to increase faster than the valuation growth, this would likely mean a greater burden on all taxpayers in town. Heavy reliance on property taxes as a source of municipal revenue, with intergovernmental revenues accounting for only 12 percent of revenues in 2000, means that future fiscal capacity is extremely sensitive to assessment growth.

Table M.1
State Equalized Valuation and Property Tax Assessment Trends

Year	Valuation	Property Tax Assessment
	Current Dollars[1]	Current Dollars[1]
1999	$252,973,700	$4,680,013
2000	$263,729,700	$4,869,749
2001	$277,889,700	$5,696,738
1999-2002 % Change	15%	33%

1 Unadjusted for inflation
Source: Maine Bureau of Taxation, Municipal Valuation Return Summary. Inflation adjustments made using U.S. Dept. of Labor Consumer Price Index.

It is useful to compare valuation trends in South Berwick to those of other York County towns. As seen in Table M.2, South Berwick's 2002 valuation per capita was lower than all surrounding towns. On a per capita basis, the 2002 property tax assessment in South Berwick was $933 (see Table M.2). This is about 35 percent lower than the York County average. Only the Town of Berwick has a lower property tax assessment per capita.

Table M.2
Valuation and Tax Spending (Assessment)

	2000 Population	2002 Valuation	2002 State Valuation Per Capita	2002 Tax Assessment	2002 Tax Assessment Per Capita
South Berwick	6,671	$290,880,400	$43,604	$6,224,840	$933
Berwick	6,353	$288,141,387	$45,355	$5,272,987	$830
Eliot	5,954	$468,360,800	$78,663	$6,838,068	$1,148
Kittery	9,543	$712,990,100	$41,713	$14,145,724	$1,482
North Berwick	4,293	$349,016,330	$81,229	$5,270,146	$1,228
Wells	9,400	$1,636,447,227	$174,090	$14,629,102	$1,875
York	12,854	$2,564,460,490	$199,507	$26,268,720	$2,045
York County	186,742	$14,847,002,232	$79,505	$234,851,155	$1,258

Source: Maine Bureau of Taxation, Municipal Valuation Return Statistical Summary, 2000 Census

South Berwick's tax spending has experienced increases among its neighbors, increasing in nominal terms of 33 percent between 1999 and 2002, slightly outpacing the York County average of 28.5 percent. Table M.3 shows South Berwick's position relative to surrounding communities. Combined with Table M.2, the increases in expenditure on a percentage basis relative to surrounding communities still yields one of the lower assessments per capita in the region.

Table M.3
Tax Spending (Commitment) 1999-2002

Community	1999	2000	2001	2002	Percent Increase 1999-2002	Percent Increase Adjusted for Inflation
South Berwick	$4,680,013	$4,869,749	$5,969,738	$6,222,840	33.00%	26.05%
Berwick	$4,604,442	$4,456,540	$5,008,844	$5,272,987	14.50%	7.50%
Eliot	$4,599,871	$4,809,033	$5,841,460	$6,838,068	48.70%	41.70%
Kittery	$11,376,223	$12,020,753	$12,771,939	$14,145,724	24.30%	17.30%
North Berwick	$4,688,045	$4,743,426	$5,027,704	$5,270,146	12.40%	5.40%
Wells	$12,077,817	$13,431,827	$14,919,690	$17,629,102	46.00%	39.00%
York	$20,134,198	$22,530,913	$25,772,406	$26,285,720	30.60%	23.60%
York County	$182,767,051	$194,054,917	$216,442,344	$234,851,155	28.50%	21.50%

Source: Maine Bureau of Taxation, Municipal Valuation Return Statistical Summary

Personal property, including business equipment, production machinery and equipment as well as other property, accounts for 1.66 percent of South Berwick's total valuation. This is significantly less than the York County total of 4.81 percent, as shown on table M4 and the third lowest of the surrounding towns. Industrial and commercial growth adds to this value and can reduce demand on taxing only real property.

Table M.4
Total Valuation by Type, 2002

Town	Business Equipment	Percent	Production Machinery & Equipment	Percent	Total Personal Property	Percent
South Berwick	$155,200	0.05%	$2,769,500	0.95%	$4,831,400	1.66%
Berwick	$638,008	0.22%	$3,910,723	1.36%	$9,245,987	3.21%
Eliot	$1,232,200	0.26%	$6,267,300	1.34%	$7,499,500	1.60%
Kittery	$13,204,671	1.85%	$22,483,629	3.15%	$35,688,300	5.01%
North Berwick	$0	0.00%	$118,548,530	33.97%	$118,548,530	33.97%
Wells	$27,119,571	1.66%	$29,119,680	1.78%	$56,239,251	3.44%
York	$2,453,851	0.10%	$13,116,933	0.51%	$18,592,690	0.73%
York County	$108,630,331	0.73%	$531,326,663	3.58%	$714,377,777	4.81%

Source: Maine Bureau of Taxation, Municipal Valuation Return Statistical Summary

5. Current and Future Revenue Trends

Education remains the single largest expenditure in South Berwick. Table M.5 compares state school subsidies and local appropriations for education. Overall school spending in SAD 35, of which South Berwick is a member, increased at a nominal rate of 43.6 percent between 1997 and 2002. Maine's school funding law provides limited aid for towns with high valuation, meaning that the basic source of revenue for education and most other town services comes from property taxes.

Table M.5
S.A.D. #35 State School Budgets and State Aid Expenditures

Year	Total State Allocation	Municipal Amount	Total Budget
1997-1998	$7,675,989	$5,498,026	$14,041,527
1998-1999	$9,842,644	$5,783,993	$16,231,952
1999-2000	$10,300,944	$6,113,820	$17,134,727
2000-2001	$10,578,296	$6,474,538	$17,772,711
2001-2002	$10,536,015	$8,501,239	$19,490,058
2002-2003	$10,163,122	$9,285,553	$20,163,157
% increase	32.4%	68.9%	43.6%

These figures are from the school's fiscal year and may differ from town figures, which are based on the calendar year. Source: Town Reports as compiled by the HCPC.

The Maine Department of Transportation provides funding to assist in the maintenance of roads. This revenue source, amounting to $79,000 in 2001, covers less than 10 percent of Public Works expenditures for the Town.

The Town receives excise taxes on motor vehicles and boats. Generally, excise taxes have increased as population growth continues. Slowing population growth will likely yield less in future excise tax revenue. This source accounted for 12 percent of revenues in 2000.

The Town also receives a variety of non-tax revenues including license and permit fees, charges for services, fines and penalties, interest income and miscellaneous sales, grants and donations.

The Town charges for a variety of licenses and permits including: weapons permits, marriage and birth certificates, building permits, subdivision fees, planning review fees,

alarm fees, police reports, accident reports and zoning variances.

The Town charges for services provided to other governmental and quasi-governmental entities as well as to the public, including dispatch services, solid waste transportation, police special details, Town Hall room rental, recreation programs and bookkeeping.

Fines and penalties consist of parking fines, tax lien costs, book fines and other ordinance fines.

The Town also receives revenue from recycled material sales, sale of used equipment and reimbursement for lost property tax dollars for libraries, tree growth, park maintenance, snowmobile registration, general assistance reimbursement and veteran's exemption reimbursement.

Interest on investments has realized small growth during the past several years, as interest rates have remained low.

Diversifying the Town's revenue sources through the exploration of additional non-tax revenues will be a priority. Fees for services can allow for expansion of service provisions without requiring subsidization through general property tax revenues.

6. Current and Future Expenditure Trends

Table M.6 compares selected expenditures between 1993 and 2003 adjusted for inflation. The most rapid spending increases were in administration and the fire department. Education spending roughly kept pace with inflation, while insurance and street light costs have declined over the period. Winter roads and solid waste costs also increased significantly over the decade.

Recent changes in the state's municipal road reimbursement formula restrict how state money can be spent. Funds may be used only for capital projects such as building and rebuilding of roads and hot-topping projects with a 2-inch minimum layer of pavement.

The Town maintains a capital improvement plan. The impacts of new development are considered relative to the Town's capacity to provide municipal services. At this time, there is no mechanism, such as impact fee assessments, to offset the costs of growth. The tool currently available for managing demands on services is a reliance on requiring phasing of developments so that municipal services can be expanded in a parallel fashion.

Table M.6
Comparison of Selected Expenditures

	1993 Expenditures	1993 Expenditures in 2003 Dollars	2003 Expenditures	**% change adjusted for inflation**
Administration	$54,679	$72,821	$146,003	**100%**
Roads & Bridges	$219,300	$292,063	$450,700	**54%**
Winter Roads	$69,199	$92,159	$174,439	**89%**
Solid Waste	$144,794	$192,836	$374,064	**94%**
Fire Department	$58,166	$77,465	$154,855	**100%**
Social Security	$63,281	$84,277	$119,872	**42%**
Insurance	$41,553	$55,340	$44,758	**-19%**
Education	$2,240,932	$2,984,467	$4,010,332	**34%**
Library	$35,818	$47,702	$77,981	**63%**
Street Lights	$31,550	$42,018	$34,446	**-18%**

Source: Town Reports, Bureau of Labor Statistics (CPI-Boston 5/93 & 5/03)

The Town maintains a healthy undesignated fund balance for the purpose of funding operations prior to collection of tax revenues. Consistent appropriations to this fund have resulted in a surplus level adequate for more than four months of operation expenses. Current Town policy seeks to maintain a surplus adequate for at least three months.

7. Municipal Debt and Capital Financing

South Berwick presently has a relatively low volume of debt when compared to the maximum debt allowed by state law. Towns may borrow up to 15 percent of their total state valuation, which in South Berwick's case would be about $20 million in 2000. In 2000, the Town's direct outstanding long term debt was equal to 0.66 percent of property valuation.

The larger portion of Town debt, the proportionate share of MSAD #35's debt, is related to school expansion. At the present time, adequate school capacity is provided and further growth of this debt is not likely. In 2001, the Town's share of this debt, 43.11 percent, amounted to $9,682,452.

Table M.7
Long Term Debt by Type

Lender	Description	Interest	Payments	End	Outstanding as of 6/30/03
Maine Municipal Bond Bank	Capital Improvement 1988B	5-7.5%	$1,500-$6,731	2004	$13,325
Maine Municipal Bond Bank	Capital Improvement 1988C	6.5-47.4%	$10,000	2008	$60,000
Maine Municipal Bond Bank	Capital Improvement 1995B	5.508-6.208%	$70,000	2015	$910,000
Fleet Bank	Capital Improvement 1990	7.05-7.35%	$50,000-$56,000	2010	$415,000
Kennebunk Savings Bank	Copier 2001	4.91%	$6,817	2004	$12,604
Kennebunk Savings Bank	Computers 2002	4.25%	$14,912	2004	$28,000
Citizens Bank	Computer Software 2002	3.10%	$7,333	2005	$22,000

Table M.8
Long Term Debt by Annual Payment

Year	Principal	Interest	Total
2004	$168,950	$87,436	$256,386
2005	$169,645	$77,563	$247,208
2006	$142,334	$67,363	$209,697
2007	$130,000	$58,691	$188,691
2008	$130,000	$50,374	$180,374
2009/2013	$510,000	$136,222	$646,222
2014/2018	$210,000	$19,555	$229,555
Total	$1,460,929	$497,204	$1,958,133

8. Capital Investments Plan

Capital Expenditure Strategy

South Berwick must make capital investments in order to meet the needs of the community in a cost effective manner. Possible capital investments include such things as road reconstruction, fire engines, trucks for snow plowing, building repairs, road upgrades and improvements to public property. Capital investments can have a large impact on the budget, becoming obvious targets when it comes to trimming the budget.

In communities that do not have a capital improvements program, individual departments plan for capital investments, often with very little communication between departments. For example, if the fire department needs a new truck, funds for the truck are included in the department's budget, regardless of other community capital needs. Such communities often defer needed capital spending when there is a budget crunch, and approve whatever is proposed when funds are available. This can result in scarce capital dollars being spent on projects that do not reflect the greatest community needs. It can also result in unexpected emergency expenditures when a piece of equipment fails because it was kept in service beyond its useful life.

South Berwick has an ongoing capital improvements program (CIP). Individual departments have prepared 10 year capital spending plans which are included in the CIP.

What is a Capital Improvement Program?

A capital improvements plan is a long-range plan (usually 5 years) for funding needed capital improvements on a rational and systematic basis. A capital improvements program identifies the capital expenditure needs of the community, it evaluates the priority of the various needs and structures a spending program for meeting the more important of these needs on an affordable basis.

In general, a capital improvements program includes the following components:

1. **Needs Identification.** Capital needs (generally in excess of $5,000) are identified on a department-by-department basis for a 5-year period.

2. **Prioritization of Need**. Since capital needs almost always exceed available dollars, the identified needs are prioritized. In larger communities, these priorities are often first established by individual departments, then adjusted within departments and between departments, generally according to predetermined criteria established by a manager or administrator, and council, and often with the assistance of a budget committee.

3. **Funding Strategy.** The next step is the development of a funding strategy. This includes a determination of alternatives for funding specific items such as general fund revenues, Federal and State funds, lease/purchase, bonds, etc. It is also important to determine how much debt the community can or is willing to undertake, and whether increased taxes or fees can be part of the funding mix.

4. **Preparation of CIP.** A 5-year capital improvements program is then prepared, usually by the manager/administrator and council, with projected or possible capital expenditures spread out over the 5-year period. The first year of the CIP generally only includes the highest priority projects which the community can afford to fund. Items in successive years generally have a lower priority. The 4th or 5th year of the CIP sometimes includes items that would be desirable to fund, but which are not absolutely essential.

5. **Annual Update**. A CIP is useful for about a year, then should be updated. In Maine, a number of communities update their CIP annually so that it continues to guide local capital investments. An annual update provides a degree of certainty as to how funds will be spent. However, it does not lock the community into the identified expenditures. Changes in the CIP can be made as emergencies arise or as priorities shift.

Funding Capital Improvements

There are a number of ways in which South Berwick can pay for its capital expenditures. Options include the following:

1. **Line Item in Budget.** Funds for some capital items, particularly recurring expenditures (e.g. police cruisers, paving) can be included as a line item in the annual budget, particularly if the community is spending the same amount every year on a particular item such as police cruisers. This is essentially a "pay as you go" approach, and is attractive because capital needs are met on an on-going, routine basis, and the community doesn't have to borrow money. Budget line items can work for smaller items, but are not practical for larger, one-time expenditures such as a fire truck or a new library.

2. **General Obligation Bonds**. A general obligation bond allows a community to spread out the costs of a major project. Since there will be a future benefit in most cases, it makes sense to pay for some of the project with future dollars. The down side, of course, is that the community is charged interest on the bonds. Interest payments represent a commitment of funds that could otherwise be used for something else.

3. **Fees.** Fees can be used to offset some of the capital costs involved in providing municipal services, although they generally are not a significant part of the municipal budget.

By way of example, adopting a "pay-by-the-bag" trash disposal system (now used in more than 50 Maine communities) would probably reduce trash volumes and generate additional revenues that could be ear-marked for waste-related capital expenditures.

4. **Privatization**. Communities across the country have turned to privatization of services as a way of reducing costs with mixed results. Privatization is not a way to fund needed capital expenditures, but it can reduce or eliminate the need for certain capital expenditures, such as construction equipment.

5. **Service Reductions.** Reducing services cannot fund capital improvements, but it can cut capital costs, thereby freeing up public money for other uses. A number of Maine communities have turned to this option to save money.

6. **Reserve Accounts**. Reserve accounts represent a "save for the future" approach to funding capital improvements. Separate reserve accounts are established, and appropriations are made to these accounts on an annual basis. Appropriations and interest accumulate until it is time for a planned expenditure to be made.

   There are several advantages to reserve accounts:

   a. **Costs are spread out.** Accumulated funds cushion the shock that might otherwise occur when a very large expenditure must be made in a given year. Reserve accounts allow the "bumps" in needed capital expenditures to be smoothed out over time. Reserve accounts ensure that a community appropriates about the same amount of money each year, rather than the actual amount needed to cover expenditures in any given year.

   b. **Money is saved.** Rather than paying interest on borrowed money for a capital expenditure, the community receives interest while the money is maintained in the reserve account.

   c. **Funds are earmarked**. Money which is put into a reserve account is specifically earmarked for a certain purpose. It represents a municipal commitment that has the support of the community. As such, funds cannot be withdrawn casually for other purposes.

   The major drawback of reserve accounts is that it is difficult for a cash starved community to set funds aside for future use when there are serious, unmet needs that have to be addressed immediately.

7. **Grants**. Some communities, such as Biddeford, have been very aggressive about funding needed capital improvements through grants. Biddeford has used the Community Development Block Grant program to undertake major public facility improvements in low income neighborhoods, and to make numerous downtown improvements. It appears South Berwick could increase the extent to which it pursues these programs.

8. **Lease Purchase**. Increasingly, some communities are using lease/purchase as an effective technique for funding equipment and vehicle needs. A lease/purchase arrangement allows costs to be spread out over time, and gives the community the option of eventually purchasing the item or turning it in at the end of the lease period.

Capital Improvement Needs

Table M.7 contains a summary of top priority capital needs compiled by the South Berwick Town Manager and Town Council. This compilation represents the current capital improvements program. The list of priority needs includes only those projects which the Town feels it can afford over the next five years.

SOUTH BERWICK COMPREHENSIVE PLAN – 2004 FISCAL CAPACITY

CAPITAL RESERVE ACCOUNTS	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
PUBLIC WORKS	$ 95,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 105,000	$ 105,000	$ 105,000	$ 105,000	$ 105,000
Equipment & Facilities Capital Reserve	Modify 89 Ford (25K) Replace 98 Rolloff (75K)	Replace 96 F150 with F250 (27K)	Replace 97 F450 (40K)	Replace 91 Ford Dump (95K)	Replace Front End Loader (135K)	Replace Chipper (35K)	Replace Backhoe (100K)	Replace Skid Steer Loader (35K)	Replace 2000 Sterling Dump (100K)	Replace 2001 Sterling Dump (100K)
	Replace 2000 Ranger w/F350 (27K0		Replace 95 F350 (40K)			Replace 89 Dump (100K)				
Current Balance $36,500										
Approx. Carry Forward	*$ 4,500*	*$ 77,500*	*$ 97,500*	*$ 102,500*	*$ 67,500*	*$ 37,500*	*$ 42,500*	*$ 112,500*	*$ 117,500*	*$ 122,500*
ROAD REPAIR	$ 300,000	$ 400,000	$ 400,000	$ 425,000	$ 425,000	$ 425,000	$ 425,000	$ 425,000	$ 450,000	$ 450,000
SIDEWALK PROGRAM	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 55,000	$ 55,000	$ 55,000	$ 55,000	$ 55,000
RECREATION FIELDS & FACILITIES	$ -	$ 10,000	$ 20,000	$ 25,000	$ 25,000	$ 25,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000
MUNICIPAL FACILITIES RESERVE	$ 5,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 12,000	$ 12,000	$ 12,000	$ 12,000
Current Balance $48,500										
Approx Carry Forward	*$ 50,800*	*$ 60,800*	*$ 70,800*	*$ 80,800*	*$ 90,800*	*$ 100,800*	*$ 112,800*	*$ 124,800*	*$ 136,800*	*$ 148,800*
FIRE DEPARTMENT	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
Equipment Capital Reserve Account		Replace Car with SUV (25K)	Replace Boat, Motor, Trailer (20K)					Replace Engine 1 (320K)		
Current Balance $95,000										
Approx. Carry Forward	*$ 76,350*	*$ 91,350*	*$ 111,350*	*$ 151,350*	*$ 201,350*	*$ 251,350*	*$ 301,350*	*$ 31,350*	*$ 81,350*	*$ 131,350*
LIBRARY BUILDING	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
NATURAL RESOURCES AND RECREATIONAL DEVELOPMENT		$ 10,000	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	see Natural Resources Goal MM and Land Use Goal H7									
TOTAL TOWN CAPITAL INVESTMENTS	**$ 540,000**	**$ 670,000**	**$ 680,000**	**$ 700,000**	**$ 710,000**	**$ 720,000**	**$ 727,000**	**$ 727,000**	**$ 752,000**	**$ 752,000**
	2004-2005	**2005-2006**	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**	**2010-2011**	**2011-2012**	**2012-2013**	**2013-2014**

SOUTH BERWICK COMPREHENSIVE PLAN – 2004 FISCAL CAPACITY

WATER CAPITAL PROJECTS

SHORT TERM 2004 – 2008	***Cost***
Willow Drive Auxiliary Generator	$72,000
Railroad Avenue Water Main Replacement	$101,000
Academy Street Water Main Replacement	$400,000
Grant & Webster Street Water Main Replacements	$83,000
System	$60,000
Spring Street Water Main Replacement	$57,000
SCADA and GIS enhancements	$175,000
Willow Drive Iron and Manganese Removal Facility	$1,365,800
Land acquisition for Wellhead Protection	$100,000
Total	**$2,413,800**

INTERMEDIATE TERM 2009 – 20013	***Cost***
Vine Street Water Main Replacement	$59,000
Hydrogeologic Assessment of Willow Drive	$40,000
Aquifer	$40,000
Interconnection with Rollinsford System	$175,000
Interconnection with North Berwick System	$100,000
Hill	$500,000
New Interconnection from Agamenticus Wells	$60,000
Corridor	$2,500,000
Land acquisition for Wellhead Protection	$100,000
Total	**$3,574,000**

LONG TERM 2014 – 2023	***Cost***
Front Street Water Main Replacement	$65,000
Akron Street Water Main Replacement	$40,000
High Street Water Main Replacement	$65,000
Land Acquisition for Wellhead Protection	$200,000
1.0 MG Water Storage Tank	$800,000
Total	**$1,170,000**

SEWER CAPITAL PROJECTS

Future pump station costs to be paid by developers

SCHOOLS

Current capacity meets anticipated needs

Implementation Matrix

The following are the Time Periods for implementation:

O - Ongoing: Actions which are continuous or are already being carried out.
I - Immediate: Actions which should be undertaken within next 2 years.
S - Short: Actions which should be undertaken within 3 to 5 years.
L - Long: Actions which will take more than 5 years to be initiated or completed.

The following are the Responsible Parties for implementation:

BC – Building Committee
CC – Conservation Commission
CPUC – Comprehensive Plan Update Committee
*CPVC - Comprehensive Plan Vision Committee: Reviewing agency for all priorities and implementation strategies.
EDC – Economic Development Committee
HDC – Historic District Commission
LAB – Library Advisory Board
PB – Planning Board
PW – Public Works
RC – Recreation Committee
SAD #35 – School District
SBSD – South Berwick Sewer District
SBWD – South Berwick Water District
TC – Town Council
*TS – Town Staff: Town Manager to assign staff as required.

Housing

Goal 1. Set forth and encourage production of a range of workforce housing in South Berwick.

Strategy	Priority	Responsible Party
1. Examine present and future town owned land for workforce housing (WFH) possibilities by conducting an inventory of present workforce housing.	O	TS
2. Convene a regional meeting to explore regional strategies to provide stable workforce housing, including homeownership and rental housing.	I	TS/EDC
3. Suggest to Adult Education that they offer a workshop on creative financing for moderate income workers regarding financing for new/prospective homeowners.	I	TS/EDC
4. Have a forum, annually or bi-annually to educate realtors on how to help homeowners find the programs that can assist with financing.	I	EDC
5. Develop and make available in the town offices and superintendent of school office a packet that educates about programs that provide financial assistance in achieving home ownership.	S	TS
6. Review policy on tax foreclosed properties, develop a set of criteria to determine cases where conversion to workforce housing be considered.	S	TS/TC
7. Continue the accessory apartment section of the zoning ordinance (Section 140-46.1) which provides the capacity to add a dwelling unit without meeting extra dimensional requirements.	O	PB
8. Consider implementing a provision in the subdivision ordinance which requires that a percentage of all new residential dwellings within a subdivision of 10 or more units, be affordable to low and moderate income families.	S	PB/TC

Goal 2. To meet the state requirements for addressing the affordable housing need in South Berwick in the next decade.

Strategy	Priority	Responsible Party
1. Review the zoning and subdivision regulations to determine their potential impact on the supply of workforce housing, including homeownership and rental housing and revise as needed to meet the state requirements for addressing the affordable housing need in South Berwick in the next decade.	I	PB
2. Encourage development that explores regional strategies to provide stable workforce housing.	I	PB/TS/EDC
3. Encourage Town Councilors, Planning Board members, Town Manager, Planning Office employees to attend educational forums regarding the issues of growth and planning.	O	CPVC
4. Continue to encourage at the Planning stage development of land in the high density zones which can support construction of workforce housing similar to the Norton Street revitalization.	O	TS/PB
5. Accommodate mobile home parks in high density areas serviced by municipal sewer and water.	O	PB
6. Consider exempting affordable housing units from any future impact fee ordinance.	O	PB
7. Review and implement the recently enacted provisions of LD 1535, related to growth caps and exemptions for affordable housing.	I	PB

Goal 3. Amend workforce housing policies as new growth information becomes available.

Strategy	Priority	Responsible Party
1. Review the workforce housing policies of the comprehensive plan on no less than an annual basis.	O	CPVC
2. In order for the comprehensive plan to be an effective working tool, establish a comprehensive plan vision committee (CPVC) to update as needed and review the WFH goals.	I	TC

Goal 4. Identify available grants that the municipality could use to develop WFH and/or rental rehabilitation for WFH.

Strategy	Priority	Responsible Party
1. Participate in the state financial programs aimed at the construction of WFH.	O	TS/EDC
2. Explore partnering with known entities working in the development of WFH, i.e.: Workforce Housing Coalition, the Housing Partnership and York County Initiative to End Homelessness.	O	TS

Goal 5. Develop a housing strategy that provides for a congregate care facility in South Berwick.

Strategy	Priority	Responsible Party
1. Consider leasing town land for the development of a future congregate care facility.	O	TS/TC
2. Consider reserving town property for a congregate care facility. Review potential use of current Town owned land and future acquired land for this purpose.	O	TS/TC
3. Seek private development of congregate housing and associate changes to land use ordinances to support such development.	O	EDC/TS

Goal 6. Determine regional/town congregate care needs over the next ten years.

Strategy	Priority	Responsible Party
1. Begin the conversation with surrounding towns to create a regional strategy for congregate care.	I	TS
2. Convene a regional meeting with surrounding towns, Maine State Housing, the Workforce Housing Coalition, SMRPC and others to discuss a regional strategy for WFH goals.	I	TS

Historic and Archeological Resources

Goal 1. To ground South Berwick's future development in solid, accurate information, the town should survey, identify and catalog areas of historic and archaeological significance throughout town.

Strategy	Priority	Responsible Party
1. Complete the survey of the downtown conducted in 1998, by providing historical documentation.	O	HDC
2. Expand the 1998 survey beyond downtown. Encompass areas of historical and archaeological significance throughout South Berwick: mill sites, historic churches, schools, railroad/trolley features, important transportation routes, archaeological sites, sites of important events, cemeteries and homes of significant people.	O	HDC
3. Develop GIS mapping to include a map of actual and eligible National Historic Register historical and archaeological properties in both downtown and elsewhere. These places will be noted as deserving priority efforts of protection.	O	TS/HDC
4. Identify "Historic Scenic Views/Areas," and incorporate into possible "Hamlet" areas outside of downtown (Old Fields, Emery's Bridge, Witchtrot, etc.)	O	HDC/CC

Goal 2. To insure our treasured resources benefit future residents as they have benefited our children and us, the town should encourage the preservation and maintenance of areas of historic and archaeological significance.

Strategy	Priority	Responsible Party
1. Provide officials and citizens with accurate, quality information about policy options to make informed choices. Explore planning tools such as: National Register of Historic Places listings, local historic district ordinances, size restrictions, design review, Impact Assessment Committees, etc.	O	TC/HDC/PB
2. Explore National Register District status for downtown as a means of maintaining property values and deter increased state	O	HDC/TC

road traffic impact for the entire downtown if desired by individual property owners.		
3. Explore expanding the downtown South Berwick Historic District as a means of discouraging the loss of historic features in the downtown. Likely expansion areas include the following corridors and adjacent neighborhoods: Main Street (bridge to bridge), Portland Street (to the Golf Course), and Norton, Academy, Liberty, Vine and Brattle Streets.	I	HDC/TC
4. Explore extending the benefits of the South Berwick Historic District Ordinance to priority areas of historical and archaeological importance identified through surveys.	S	HDC
5. Explore Town assuming overall responsibility for cemetery maintenance as a means of honoring our veterans and protecting important monument sites. Working with the South Berwick Cemetery Commission, veterans groups and historians, initiate a five-year Cemetery Restoration and Maintenance Plan. Steps to include: gathering expertise through such resources as the New England Cemetery Association; surveying cemeteries; prioritizing sites; grant writing and fundraising; restoration; and development of a periodic maintenance plan.	I	TC/CPVC
6. Ensure new construction harmonizes with South Berwick's traditional character.	I	HDC/PB/TC
7. Provide adequate tools and funding for maintenance and repair in historic neighborhoods.	I	TC/EDC
8. Seek Community Development Block Grants for a downtown rehabilitation project managed by a full or part-time downtown planner.	I	TC/TS
9. Obtain Certified Local Government status for South Berwick and lead grantwriting efforts to attract state and federal funds to eligible properties and survey projects.	S	TS/EDC
10. Establish a Main Street Program for South Berwick.	O	HDC/TC/PB
11. Explore / implement local tax incentives for repairs to historic buildings.	I	EDC/TS/HDC
12. Develop photographic and annotative document of historic buildings prior to demolition.	I	HDC

13. Develop strategies to protect known historical resources in the development review process.	I	PB/HDC/TS

Goal 3. To encourage all citizens to enjoy and protect South Berwick's history, the town should build a heightened awareness of our architectural and archaeological treasures.

Strategy	Priority	Responsible Party
1. Lead local businesses in rejuvenating the South Berwick Board of Trade as a local Chamber of Commerce with the possible long term goal of becoming a Main Street Program.	I	HDC/EDC/TS
2. Develop heritage tourism program to attract visitors, benefit residents and bolster local businesses. Such a program could include: maps and brochures guiding visitors and residents to historic and scenic areas, A South Berwick information office / welcome center at the Jewett Eastman House, the Counting House or elsewhere, to direct visitors and citizens to cultural resources, local artisans, farmers, events, etc. Such a facility could offer display of art and other projects by our schools.	I	HDC/EDC/TS
3. Create attractive and interesting signs and/or plaques around town with dates, names and pertinent information to enrich the experience of visitors and residents alike.	I	HDC/CPVC/EDC

Downtown

Goal 1. Develop mechanisms to preserve the character of downtown, recognizing history, scale and architectural style.

Strategy	Priority	Responsible Party
1. Encourage attention to Historic Preservation as stated in Historic Resources Goals B & C.	S	HDC
2. Develop ordinances to preserve the unique character of downtown.	I	TC/PB/TS
3. Review scale and setback of new buildings.	I	TC/PB/TS
4. Provide developers with information guide regarding historic information, options, and lighting and planting recommendations.	I	TS/HDC
5. Establish an impact review committee.	O	PB/TC
6. Review strategies and tools to limit and discourage drive thru and chain stores in the downtown.	O	PB/TC
7. Encourage residential/commercial mixed use development.	I	PB/EDC/TC
8. To maintain unique character of downtown, ensure existing zoning & proposed zoning supports mixed use development in the downtown.	I	PB/TC/EDC
9. Develop policies to encourage commercial uses on the ground floor in the commercial district.	I	PB/TC/EDC
10. Review and refine performance standards for downtown.	I	PB
11. See Historic and Archeological Resources Goal 2.	S	CPVC

Goal 2. Promote history of downtown.

Strategy	Priority	Responsible Party
1. Develop historic value of Landing area.	L	CPVC
2. Support Historical Society.	O	CPVC
3. Place historical plaques to mark historical sites.	O	HDC/TC
4. Develop a walking tour and brochure.	O	HDC
5. See Historic and Archeological Resources Goal 2.	O	CPVC

Goal 3. Enhance beautification of downtown area.

Strategy	Priority	Responsible Party
1. Encourage development of tree "scape".	I	CC/PW
2. Create a Downtown Merchants Association, Chamber of Commerce, Board of Trade or Main Street Program.	I	EDC
3. Explore funding sources, including grants and tax incentives that can assist landlords in improving building conditions in the village.	O	TS/EDC

Goal 4. Expand cultural activities in the downtown and promote public awareness of such activities.

Strategy	Priority	Responsible Party
1. Construct or recommend a weatherproof bulletin board.	I	PW
2. Encourage construction of a gazebo or half shell in downtown (possibly by new library).	S	TC
3. Encourage music and the arts in downtown.	O	CPVC/EDC/TS
4. Encourage Farmer's Market.	I	EDC/TS/CPUC

Goal 5. Night time activity in town.

Strategy	Priority	Responsible Party
1. Promote a place for youth orientated activities downtown, i.e., music, theater, restaurants, ice cream parlor, service orientated businesses.	L	CPVC
2. Promote family friendly businesses.	L	EDC
3. Encourage holiday seasonal events.	O	TS/EDC

Goal 6. Provide better access to the river and expand the use of the Point and/or the Landing.

Strategy	Priority	Responsible Party
1. Developing Counting House Park for recreational access to the river.	O	TC/CC
2. Expand existing open spaces for river access.	O	CC/CPVC

3. Encourage municipal acquisition of riverfront land for public cultural and recreational use.	S	TC/CC
4. Expand development of existing public access.	O	CC/TC
5. Develop Harold K. Joy memorial picnic area.	L	CPVC

Goal 7. Promote mixed use in the Point and the Landing to attract artists.

Strategy	Priority	Responsible Party
1. Encourage mixed use (residential, commercial, industrial) of buildings in the Point that specifically attract artists so they can live and work in buildings on Salmon Falls Street and side streets.	I	EDC/PB/TC/TS

Goal 8. Develop a market/grocery store.

Strategy	Priority	Responsible Party
1. Actively recruit location of a market/grocery store in downtown area.	O	EDC

Goal 9. Encourage new infrastructure improvements that enhance visual appeal, convenience, safety and accessibility.

Strategy	Priority	Responsible Party
1. Encourage expansion of underground utilities by requiring of new construction or assessing supplemental fees. Also, investigate grants and partnerships with groups such as CMP to develop a policy to further underground utilities.	S	TS/PW/PB/TC
2. Provide public restrooms (consider use of Town Hall basement).	O	PW
3. Develop a program of uniform lighting on both sides of street, with a green buffer between the sidewalk and street where possible. Consider the use of impact fees or pursue grants for this purpose. Adopt a universal light policy. Ensure that lighting plan is in keeping with character of downtown.	S	TS/PW/PB/TC
4. Enhance universal access, including ramps and handicapped parking. Encourage all development to provide universal	O	PW/TS

access. Develop a handicapped parking plan.		
5. Encourage adding bike lanes in the downtown and in the reconstruction of existing roads.	O	PW/TS
6. Develop a plan for connecting downtown areas with sidewalks and bike paths. Provide pedestrian and bike rest points.	O	PB/PW/TS
7. Develop program for sidewalks, benches and awnings.	O	PW/TS
8. Develop a plan for traffic calming measures.	I	PW/TS/PB
9. Supplement crosswalks with reflectors.	I	PW
10. Work with DOT to formulate traffic control and with Maine Turnpike Authority to change toll structure.	O	TC/PW/TS
11. Encourage police presence in downtown on foot or on bicycle.	I	TS/TC

Goal 10. Develop a Town green or outdoor meeting area.

Strategy	Priority	Responsible Party
1. Encourage municipality to purchase areas surrounding existing Town Hall and Central School.	O	TC
2. Encourage recreational development of Powderhouse (i.e. gazebo/amphitheater for multi-season use).	I	EDC/TS/TC

Goal 11. Passive and active recreation areas.

Strategy	Priority	Responsible Party
1. Encourage bike racks and town playground.	O	PW/TS
2. Expand existing recreational facilities in the downtown.	O	PW/TS

Goal 12. Public and community facilities remain downtown (Library, Central School, Town Offices, Post Offices).

Strategy	Priority	Responsible Party
1. Encourage municipal expansion and relocation to downtown municipal core.	O	TC

Goal 13. Traffic control or traffic calming measures (sling shots, square comer, etc.)

Strategy	Priority	Responsible Party
1. Support design programs to control traffic and make pedestrian friendly.	O	TS
2. Encourage police presence in downtown on foot or on bicycle.	I	TC/TS
3. Provide additional crosswalks with raised deflectors.	I	PW/TS

Goal 14. Strengthen parking management.

Strategy	Priority	Responsible Party
1. Develop small satellite parking areas.	I	PB/TC/TS/EDC
2. Reduce perception that parking is limited (develop sign & education program).	I	EDC
3. Provide incentives to property owners to use their parking areas in off hours.	O	TC/PB

Goal 15. Investigate forms of public transportation to and around town.

Strategy	Priority	Responsible Party
1. Investigate a seasonal trolley with handicapped access in summer months.	L	CPVC

Land Use

Goal 1. Concentrate areas of increased density growth near public water and sewer.

Strategy	Priority	Responsible Party
1. Maintain allowable residential densities in the current R-1 District.	O	PB
2. Continue to support multi use in the downtown business district	O	PB/EDC
3. Encourage extending water and sewer service throughout R-1 and R1-A, and maintain current dimensional requirements of Zoning Ordinance.	I	SBSD/PB/TS/SBWD
4. Promote condominium/multi-family development.	I	PB
5. Consider expansion of water and sewer service throughout R1, R1A, R2, R2A, B1, B2 and I1 Districts from buildout scenario 3.	I	SBSD/SBWD/PB/TS

Goal 2. Implement a clear Impact Fee Schedule to accompany development as it relates to the Town's Fiscal Capacity.

Strategy	Priority	Responsible Party
1. Develop strategies to identify all potential services for which impact fees can be charged and implement an Impact Fee Ordinance consistent with state law that covers some or all of these services.	O	PB/TC/TS
2. Implement an appropriate Impact Fee Ordinance.	O	PB/TC/TS
3. Review this policy regularly to ensure compliance with the Law, and the Town's ability to provide infrastructure improvements while maintaining its Fiscal Capacity.	O	TS/TC

Goal 3. Promote infill development (infill development is the use of vacant land in built up portions of Town).

Strategy	Priority	Responsible Party
1. Examine the use of a Transfer of Development Rights Program, which would encourage the use of land in the R-1 and R-2 districts.	I	PB/TC
2. Encourage expansion of Water and Sewer services within R-1, R-1A, R-2, and R-2A that is consistent with the Policies and Expansion Priorities of these Agencies.	I	SBWD/SBSD/PB/TS
3. Coordinate project reviews and implementation of work between Water, Sewer, and Public Works.	O	PW/SBSD/SBWD
4. Examine and encourage appropriate aspects of the "Great American Neighborhoods" concept of development that emphasize interconnected streets that are bicycle and pedestrian friendly, while intermixed with some commercial and public uses.	S	CPVC/PB
5. Seek funding opportunities for infrastructure development and downtown improvements as provided by the Maine Municipal Trust Fund, Community Development Block Grant, Maine Municipal Bond Bank and other grant funds.	I	TS/EDC
6. Examine the feasibility of "Contract Zoning" in which proposed developments are allowed to exceed established base densities. In return consider the developer paying a density transfer fee that is allocated to a Trust or similar vehicle for purchasing development rights in highly valued rural areas.	O	PB/TS/TC/EDC

Goal 4. Seek a level of growth that corresponds to the Town's ability to provide services.

Strategy	Priority	Responsible Party
1. Refine and renew the building permit limitation ordinance, tying it to availability of Town services. Provide additional points for those permits applied for within the Town's designated growth areas. Adjust number of yearly permits based on provision of additional school space, the upgrading of the South Berwick Sewage Treatment Plant, the location of a	O	TC/TS/PB

new well for the South Berwick Water District, status of the Capital Improvements Plan, and other factors as deemed significant by the South Berwick Planning Board and Council.		
2. In conjunction with build out and future land use plans, refine the Subdivision Phasing requirements. The basis of these requirements are subdivision size, location as determined by these maps and how these dovetail with current and projected growth rates, the town's ability to provide services and the growth ordinance.	O	TS/PB
3. Regularly review growth permit allocation.	O	TC/TS
4. Identify trends for development and potential development capacities by review of build-out and land use maps and growth ordinance.	O	TS
5. Ensure appropriate planning and coordination of future capital investments to support existing and future land uses.	O	TS/TC/PB
6. Explore the feasibility of a differential growth cap.	I	PB

Goal 5. Provide adequate management and controls of subdivisions and other divisions of land in rural areas to reduce invasive development.

Strategy	Priority	Responsible Party
1. Maintain the Subdivision Ordinance requiring two plans to be filed when a development is proposed in the R-3, R-4 and R-5 districts, as well as the expanded portion of the R-2 district. Plans shall present both a clustered approach to the subdivision of land as well as a plan showing normal lot sizes in the district. The Planning Board shall have the option of choosing the plan, which is most representative of the principles and policies of the Comprehensive Plan.	O	PB/TS
2. Review criteria for establishing and implementing a "Critical Rural Overlay Zone" with standards that restrict development.	I	PB/TC
3. Examine and develop "Conservation Subdivision Guidelines". Encourage the use of Conservation Subdivisions.	I	CC/PB
4. Apply recommendations of the Natural Resources Committee for developing Conservation Subdivision Guidelines.	I	CC/PB
5. Strongly encourage preserved lands within conservation	O	CC/PB

subdivisions be contiguous with other preserved lands to create greenbelts.		
6. Examine and develop standards for buffer zones around vernal pools and review and maintain standards for wetlands.	O	CC/PB
7. Review and consider increasing lot sizes, frontage, and setback requirements in R-3, R-4, and R-5.	I	PB/TS
8. Examine and recommend limits to extending additional town services in the R-3, R-4, and R-5.	I	TC/PB
9. All potential subdivisions within R-3, R-4, and R-5 shall consider their relationship to Resource Protection Zones, other critical habitat and buffers, prime farmland soils, and all environmental inventories within GIS overlay maps.	O	CC/PB
10. Examine and encourage opportunities for the selling and buying of development rights to secure environmentally critical areas safe from development in the R-3, R-4, and R-5.	I	PB/CC
11. Expand the R5 zone to incorporate land between Belle Marsh Road and White's Marsh.	I	PB/TC/CC

Goal 6. Expand some of the current high-density residential areas to accommodate further growth.

Strategy	Priority	Responsible Party
1. Expand high-density areas in accordance with the recommendations of the Land Use Map. Lot standards for these zones will be lowered upon the provision of water and sewer to these areas. Ensure that new subdivision activity within the expanded R1 district is in keeping with the architectural integrity of the area through a site plan review process.	I	PB/TC
2. Periodically review the boundaries and minimum land requirements of each zoning district.	O/S	TS/PB/TC
3. Consider expanding high density residential development into R-2A. Examine increasing setbacks when approving cluster/conservation developments that adhere to Conservation Subdivision Guidelines.	I	TS/PB/CC

Goal 7. Develop standards for the rural zones, which avoid scattered strip development along country roadsides and other potential forms of sprawl.

Strategy	Priority	Responsible Party
1. Maintain the R-3 and R-4 districts as zoning categories subject to more restrictive standards to protect rural character. Continue an R5 zone aimed at preserving natural resource systems within the Mt. Agamenticus area. Regulate uses according to their environmental impact.	I	TC/PB/CC
2. Review criteria for establishing and implementing a "Critical Rural Overlay Zone".	I	TS/PB/TC
3. Review and implement road standards for paving & widening of roads and provision of sidewalks and curbs, while encouraging innovative design practices to preserve rural character.	I	TS/PW/PB
4. Consider increasing minimum lot sizes, frontages and setbacks in conjunction with density standard minimums	I	PB/TS
5. Incorporate inventories of cultural and historic structures, working forests and timber management activities, active farm lands, maintaining and expanding contiguous forestlands, protection of rare floral and fauna habitat, and insuring surface and groundwater quality to protect watersheds into build out and growth maps.	O/I	CC/TS/HDC
6. Encourage Cluster/Conservation Subdivisions.	O	PB/TS/CC
7. Encourage private landowners and the Town to further the conservation efforts of the Mt. Agamenticus area.	O	CC/TC/TS
8. Inventory land use plans of abutting municipalities and seek to encourage a similar land use vision for their lands bordering South Berwick.	I	TS/CC
9. Examine ramifications of extending additional town services in the rural zones.	I	TS/TC/SBWD/SBSD
10. Utilize digital mapping of natural resource maps as overlay maps on tax maps.	O	TS
11. Encourage the buying of development rights for open space, and the placement of conservation easements.	O	CC/TC/TS
12. Promote enrollment in current use taxation programs such as Tree Growth, Farm, and Open Space.	I/O	CC/TS/TC

13. Expand minimum lot size in the R5 zone to 200,000 s.f.	I	PB/TS/TC

Goal 8. Protect environmentally sensitive lands and severely restrict development where there are significant development limitations, including wetlands, steep slopes and flood plains.

Strategy	Priority	Responsible Party
1. Review Town ordinances to ensure they are consistent with the Natural Resources Protection Act (38 MRSA 400-A et. seq.), the Endangered Species Act (12 MRSA 7751 et. seq.), the Mandatory Shoreland Zoning Act (38 MRSA 435 et. seq.) and any other applicable state or federal regulations.	O	TS
2. Continue to encourage programs to help landowners protect and preserve wildlife habitat, including fisheries and help them take advantage of conservation programs to preserve undeveloped lands.	O	CC/TS
3. Continue existing development prohibitions on building in flood plain areas.	O	TS/PB
4. Work closely with "Beginning with Habitat" to guide conservation efforts and its relation to development town wide.	O	CC/TS
5. The Planning Board and Code Enforcement Office shall consider use of all available mapping compiled for this plan including, but not limited to those maps generated by the Maine Department of Inland Fisheries and Wildlife, Maine Natural Areas Program, The Nature Conservancy, US Fish and Wildlife, South Berwick Conservation Commission, and the Great Works Regional Land Trust as a basis for determining development constraints. Ensure compatibility with Geographic Informational Systems (GIS) mapping.	O	TS/PB/CC
6. Explore the possibility of the Conservation Commission and other Town commissions to study and recommend for the Town funding strategies for purchasing development rights, creating Trusts and Land Banks, density transfer fees, and other mechanisms proven effective in protecting environmentally sensitive lands.	I	CC/TC/PB/EDC
7. Continue to develop close working relationships with land trusts and conservation commissions such as the Great Works	O	TS/CC

Land Trust, York Land Trust, Wells Conservation Commission, York Conservation Commission, and Eliot Conservation Commission for the Rural Districts.		
8. Seek land acquisition funding from government administered funds such as the Land and Water Conservation Fund, Maine Outdoor Heritage Fund, and the Land of Maine Future's Board.	I	CC/TC/TS
9. Develop an inventory analysis system as a reference tool for the Municipal Offices, in particular the Planning Office, specifically including build out and growth maps.	I	TS
10. Create a new Capital Reserve account called "Natural Resources & Recreation Development" and invest seed money for the upcoming fiscal year. Moneys obtained through efforts including those listed in strategies H7 - H9 and from other sources, can be secured for future acquisitions eventually defined and permitted by this account.	I	TC

Goal 9. Ensure as land is developed, networks for open space, transportation, and wildlife are developed and maintained.

Strategy	Priority	Responsible Party
1. Amend the Zoning and Subdivision Ordinances to require that important natural resources, as defined in this Plan, are retained as land is developed. These resources and networks should be tied into a plan for open space.	O	TS/PB/CC
2. Retain natural cover and vegetation in developments.	O	PB/CC
3. Create easements and buffer zones to protect areas of scenic value and the preservation of scenic vistas.	O	PB/CC
4. Set aside recreational and passive open space in developments for contiguous greenbelt lands.	O	PB
5. Identify and map existing wildlife corridors.	O	TS/CC

Goal 10. Discourage roadside sprawl by preserving greenbelts and by developing buildings and parking areas in a concentrated manner, which conserves land along arterials and major collectors to maintain scenic character.

Strategy	Priority	Responsible Party
1. Strive for consistency in the application and enforcement of the Zoning Ordinance.	O	TS/TC/PB
2. Strengthen performance standards for individual lot development.	I	TS/TC/PB

Goal 11. Promote a mix of building types, which reinforce and reflect existing patterns of use.

Strategy	Priority	Responsible Party
1. Continue to use the adopted Site Plan Review procedures, and review them regularly for further recommendations.	O	PB/TS
2. Continue to allow a diversity of housing types, including single family homes on large and small lots, apartment additions for older homes on sewer, duplexes and attached housing, multiple and apartment housing, mobile home parks, manufactured housing on single lots, and group homes for the elderly and handicapped. Continue to ensure that adequate parking is provided to serve residential uses.	O	EDC/PB/TS
3. Continue to allow mobile home parks in specific areas of Town.	O	PB
4. Promote the continuity of architectural facades for all renovations and new buildings.	I	HDC/PB/TS
5. Review footprint restrictions based on average existing property use.	I	PB/TS
6. Consider a review period for demolition applications.	O	HDC/PB/TS/TC
7. Review and consider expanding existing performance standards particularly as to their application in the village area as shown in Map F1 (Downtown chapter).	I	PB/TC/TS

Goal 12. Locate commercial areas in districts consistent with both local and regional development patterns.

Strategy	Priority	Responsible Party
1. Consider expanding the commercial zone in the village as shown on the Land Use Map.	I	TC/PB/HDC/EDC
2. Consider rezoning areas that are zoned commercial but are predominantly residential in use.	I	TC/PB
3. Continue to require that non-residential development be subject to Site Plan Review.	O	PB/TS
4. Promote the existing pattern of multi-use in downtown commercial district. Multi-use is defined as a combination of business and residential uses.	O	PB/TS/EDC
5. Encourage preserving the integrity and architectural consistency of buildings within the commercial districts.	I	HDC/EDC/PB/TS
6. Actively revitalize and pursue funding grants that recognize and support the value and integrity of the Village, such as Community Development Block Grants, Applications to Maine's Main St. Programs, and Certified Local Government Status. See Downtown Goals & Strategies.	O	TS/TC/EDC/HDC

Goal 13. Encourage and promote policies that maximize developing the Industrial Zone in a comprehensive and cohesive manner for commercial/service related and/or industrial businesses.

Strategy	Priority	Responsible Party
1. Continue to redefine industrial uses, denoting categories for light and heavy industrial uses. Rezone land along Route 236 for commercial and industrial use conditional upon a "corridor study" along Route 236 and the development of strict performance standards identifying limitations, uses, access and impacts of such a rezoning. Consider the use of contract or conditional zoning for new industries.	O	PB/TC/EDC
2. Locate industrial development near water and sewer without impacting the village district.	O	PB/TC/EDC
3. Continue to reevaluate the location of the existing Industrial	O	TS/PB/EDC

Park and the uses in that park.		
4. Public sewer connection shall be necessary.	I	SBSD/PB/TS
5. Seek growth-related capital investment funds from Department of Commerce, Community Development Block Grants and other potential sources	O	TS/TC/EDC
6. Examine the use of State and Federal Grants with local Tax Increment Financing (TIF).	I	TS/TC/EDC
7. Consider forming an industrial development authority or commission to study industry trends to best determine target businesses for partnering with the Town. Also determine how the Town can be a potential investor partner in a development project within the Industrial Zone.	I	EDC/TC/TS
8. Continue to develop and maintain a working relationship with MDOT, especially concerning the status of road cuts, traffic volume and speed, acceleration and deceleration lanes, and other factors relating to Rt. 236 and the Industrial Zone.	O	TS/TC/PW/PB
9. Work closely with the Transportation Public Facilities Goals and Strategies on these matters.	I	TS/TC/PW
10. Study Tax Base Sharing concepts as a regional development strategy with other towns.	I	TS/TC/EDC

Goal 14. Ensure that mechanisms are developed to oversee implementation of the Comprehensive Plan on a continuing basis.

Strategy	Priority	Responsible Party
1. Continue to update the Comprehensive Plan on a regular basis.	I/O	CPVC
2. Monitor growth in neighboring communities and coordinate planning efforts whenever possible.	I	TS
3. Establish a COMPREHENSIVE PLAN VISION COMMITTEE (CPVC).	I	TC
4. Develop a representative system for the CPVC that insures continuity amongst members.	I	TC
5. Continue working relationships with regional planning agencies and consultants, the State Planning Office, and other appropriate State and Federal Agencies, as necessary, to develop and implement strategies of the Comprehensive Plan.	O	TS/PB/CPVC

6. Continue to utilize services of professional planning consultants and consider expanding in house planning capacity to support the Comprehensive Plan.	O	TC/TS/CPVC/PB

Goal 15. Enact a GROWTH MANAGEMENT PROGRAM consistent with Maine State Law under Section 4326 of Title 30-A.

Strategy	Priority	Responsible Party
1. Ensure INVENTORY AND ANALYSIS applies to the State goals of this section.	I	CPUC/TS/CPVC
2. Ensure POLICY DEVELOPMENT is consistent to the State goals of this section.	I	CPUC/TS/CPVC
3. Ensure an IMPLEMENTATION STRATEGY that is consistent to the State goals of this section.	I	CPUC/TS/CPVC
4. Ensure a REGIONAL COORDINATION PROGRAM is enacted to manage shared resources and facilities.	I	CPUC/TS/CPVC
5. Ensure that an IMPLEMENTATION PROGRAM is adopted and is consistent with State goals of this section.	I	TC/TS/CPVC

Natural Resources

I Water Resource: Surface Water

Goal 1. Establish a system to continually monitor surface water quality for the purpose of maintaining or upgrading that quality.

Strategy	Priority	Responsible Party
1. Obtain from DEP copies of water quality tests undertaken on great ponds, rivers and streams and review these tests to identify sustained water quality changes warranting Town action.	O	CC/PW
2. Re-establish volunteer surface water quality monitoring.	O	CC
3. Support volunteer monitoring programs through public education and purchase of equipment and reagents.	O	CC/TC
4. Investigate partnerships with schools for surface water monitoring.	I/S	CC

Goal 2. Ensure that water quality is sufficient to provide for the protection and propagation of fish, shellfish and wildlife. Provide for recreation in and on the water.

Strategy	Priority	Responsible Party
1. Continue to require that developers demonstrate that projects will have no adverse impact on the quality of surface water resources.	O	PB/TS
2. Continue to acquire easements and/or fee purchases of land, but also consider the potential impact and required infrastructure associated with increased public access.	S	CC/TC/TS/PW
3. Maintain the current resource protection district and add greenbelt links or corridors where appropriate.	O	CC/PB/TC
4. Develop GIS mapping to include resource protection, shoreland and floodplain areas so that this information is used in land use	O/I	TS

decisions and print on tax maps.		
5. Review wetlands dredging and filling criteria for impact on down gradient water bodies.	I/S	TS/CC/PB

Goal 3. Require practices that minimize runoff, soil erosion and sedimentation, which may result in excess nutrients being added to surface waters.

Strategy	Priority	Responsible Party
1. As part of Subdivision review, continue to require impact studies demonstrating that runoff, soil erosion and sedimentation will be prevented or mitigated by adequate control measures.	O	PB/TS
2. Incorporate DEP's phosphorus loading standards into the Subdivision Ordinance, particularly in relation to protecting Great Works River, Salmon Falls River, Knight's Pond, Cox's Pond and Warren Pond, to maintain existing water qualities.	I/S	PB/TS/TC
3. Consider requiring Subdivision Stormwater Management Plans to be clearly stated within Homeowner's Association Agreements.	I	PB/TS/PW
4. Consider streamlining on-going oversight of stormwater management plans by creation of databases and/or GIS that can be utilized by appropriate Town staff.	I	TS

Goal 4. Ensure that development is located on land capable of supporting on-site water and septic disposal systems in areas where no municipal water or sewer services are available.

Strategy	Priority	Responsible Party
1. Continue to require that a high intensity soil survey be prepared as part of the development review process.	O	PB/TS
2. Continue to require an approved septic design or appropriate sewer connection prior to the issuance of a building permit.	O	TS
3. Apply the "suitable land calculation" table to **any** lot division, whether located in a subdivision or not (Section South Berwick Zoning Ordinance).	I	TS/TC/PB
4. Check to ensure that subdivision and zoning ordinances are	I	TS/CPVC/PB

consistent with these goals.		

Goal 5. Direct development to areas with appropriate soil, slope and drainage conditions.

Strategy	Priority	Responsible Party
1. Continue to regulate development through appropriate standards in the Town's Ordinances.	O	PB/TS
2. Protect environmentally sensitive areas	O	CC/PB/TS/TC
3. Require that all development plans show medium intensity soils data.	I	TS/PB

Goal 6. Develop cooperative efforts with surrounding communities on issues related to watershed planning.

Strategy	Priority	Responsible Party
1. Establish with Berwick, North Berwick, York and Eliot, as well as other communities, a dialogue and exchange of information on watershed planning issues.	O	CC/TS/TC
2. Consider increasing minimum lot sizes and conditions into the Kittery Water District areas of South Berwick.	I/S	PB/TS/TC
3. Consult where appropriate with Strafford Rivers Conservancy and Great Works Regional Land Trust.	S	CC/TS/TC

Goal 7. Educate the public about State and Federal laws governing water resources.

Strategy	Priority	Responsible Party
1. Promote awareness in schools.	S	SAD35
2. Use the Town newsletter.	I/S	CC/TS
3. Enhance communication between the Water District and the Town.	O	TC/TS
4. Encourage water conservation.	I/S	CC/SBWD

Goal 8. Develop alternative plans for future water supply needs of the community.

Strategy	Priority	Responsible Party
1. Establish a contingency plan for the use of an alternate water supply source, including another aquifer.	O	SBWD, TS, PW
2. Develop a long range plan for the development of other water supply sources other than in the existing aquifer. Long range planning efforts may include possible use of the Belle Marsh Reservoir.	O	SBWD, TS, PW

II Critical Resources: Topography, Geology and Land Cover

Goal 9. Direct terrain alternation and other development away from landforms with slopes greater than or equal to 15%.

Strategy	Priority	Responsible Party
1. Prior to issuing permits, document existing conditions by on the ground topographic surveys performed by qualified professionals.	I	TS/PB/TC
2. Ensure that high intensity soil surveys performed for the development review process document areas of steep slopes and shallow soil cover.	O	TS/PB
3. Adopt ordinance language that places the same requirements on individual lot development as on subdivisions (see definitions in Title 30A MSRA).	I	TC/PB/TC

Goal 10. Ensure that new development shall be designed to be compatible with existing topography and to preserve natural land and vegetation.

Strategy	Priority	Responsible Party
1. Retain ordinance language that restricts land development on steep slopes, floodplains, wetlands and environmentally sensitive areas; promotes clustering; minimizes road length and provides for stream, river and great pond buffers.	O	PB/TC/TS
2. As part of Subdivision review, encourage retention of natural	O	PB/TS

cover and vegetation to the maximum extent possible for example through the use of building envelopes.		

Goal 11. Ensure passive land uses through easements and buffer zones in areas of scenic value.

Strategy	Priority	Responsible Party
1. Develop GIS mapping to use as a tool to prioritize significance of natural and scenic areas.	I/S	TS
2. Revise Subdivision Ordinance to mandate protection of scenic areas.	I/S	PB/TS/TC
3. Encourage development that considers preservation of scenic vistas and sets aside recreational and passive open space.	O	PB/TS

III Critical Areas: Floodplains

Goal 12. Continue to maintain the current floodplain standards.

Strategy	Priority	Responsible Party
1. Retain Zoning Ordinance prohibition on developing floodplains.	O	PB/TS/TC
2. Eliminate the filling of wetlands within floodplains.	I	PB/TS/TC

IV Critical Resources: Soils

Goal 13. Evaluate land use with respect to physical, chemical and biological characteristics of soils, such as depth of water table, texture, permeability, slope, etc. as defined by the USDA, Natural Resources Conservation Service.

Strategy	Priority	Responsible Party
1. Continue to require high density soil survey to determine soil types.	O	PB/TS
2. Suggest definition of specific soil types for **all land** proposed for development through use of high intensity soil surveys.	O/I	PB/TS
3. Continue to require that erosion and sedimentation controls be implemented for land redevelopment.	O	PB/TS

4. Analyze patterns of runoff (pre and post development) and implement controls to prevent flooding, erosion and off site transport of soil sediment.	I	TS/PB
5. Develop GIS mapping to include prime agricultural soils and print on tax maps.	O/I	TS
6. Protect prime agricultural soils. Acquire easements or purchase development rights. Consider Transfers of Development Rights.	O/I	TS/PB/CC/TC

V Critical Resources: Wetlands

Goal 14. Map and identify wetlands based on soils and vegetation, while recognizing the role and implications of wetland loss.

Strategy	Priority	Responsible Party
1. Continue to require developers to identify wetlands boundaries.	O	PB/TS
2. Develop GIS mapping to include wetlands. Include updates as new information becomes available. Supplement existing mapping sources with on the ground delineation for determination of wetland edges. If available, use funds from capital improvement plan to do this work. Print on tax maps.	O/I	TS/PB/CC
3. Consider changing the definition of wetlands in the Zoning Ordinance (suggested reference is the US Army Corps of Engineers Wetlands Delineation Manual, 1987).	I	TS/TC/PB
4. Refer to current established wetland mapping criteria as developed by the National Wetlands Inventory, State GIS Wetland Mapping and Maine State Planning Office ranking to update town maps to determine total wetland size.	I/S	TS

Goal 15. Regulate the discharge of dredged or fill material into all waters, including wetlands.

Strategy	Priority	Responsible Party
1. Revise Zoning Ordinance regulating the discharge of dredged or fill material.	I	TS/PB/TC

Goal 16. Provide adequate protection for wetlands through buffer zones as currently defined in the Resource Protection and Shoreland Zoning section of the Zoning Ordinance.

Strategy	Priority	Responsible Party
1. Continue the 100 foot setback around 2 acre wetlands.	O	TS/PB/TC
2. Consider extending resource protection to all 10 acre wetlands, including forested wetlands and/or those of moderate and high value.	I	TS/PB/TC/CC
3. Consider shoreland zoning protection for wetlands 2 to 10 acres in size.	O	TS/PB/TC
4. Consider a 25 foot setback for wetlands under 2 acres.	O	TS/PB

Goal 17. Define those activities for which the draining, filling into or on a wetland is considered unacceptable.

Strategy	Priority	Responsible Party
1. Amend the Zoning Ordinance to prohibit the draining and filling of 2 acre wetlands and resolve conflict with current state law on allowed filling.	I	TS/PB/TC
2. Regulate discharge of dredge, fill materials.	I	TS/PB/TC

Goal 18. Develop reasonable performance standards for the use of wetlands and their adjacent areas.

Strategy	Priority	Responsible Party
1. Prioritize wetlands based on the functions and developed performance standards based on these priorities.	I	TS/CC/PB
2. Continue investigations on the type and quantity of wetland resources.	S/L	CC/TS
3. Apply information such as mapping or other inventories as they become available for possible inclusion into Town information bases.	I/O	CC/TS

VI Critical Resources: Wildlife

Goal 19. Undertake further studies and investigation of additional wildlife resources, including fisheries, and establish the actual value of these and existing resources as documented by Inland Fisheries and Wildlife.

Strategy	Priority	Responsible Party
1. Conduct a town-wide inventory of wildlife resources in consultation with Maine Audubon, Inland Fisheries and Wildlife and the Nature Conservancy.	I	CC/TS
2. Adopt Best Management Practices for vernal pools in the Mount Agamenticus area.	I/S	CC/PB/TS/TC
3. Consult with officials from the Department of Inland Fisheries and Wildlife and Department Marine Resources whenever a proposed development project would impact deer wintering areas, high value plant and animal habitat (ref. Maine Natural Areas Program), fisheries and endangered or threatened species.	O/I	CC/TS/PB
4. Develop GIS mapping to reflect latest research.	I	CC/TS

Goal 20. Consider activities, which involve the draining, filling and waste disposals in wetlands as unacceptable.

Strategy	Priority	Responsible Party
1. See Wetlands Goals 14 – 18.		

Goal 21. Protect the riparian habitat of all wetlands greater than or equal to two acres and vernal pools from development and modification such as filling and clear cutting.

Strategy	Priority	Responsible Party
1. Regulate areas within 250 feet of high to moderate value wetlands and/or those greater than or equal to 10 acres.	O/I	CC/TS/TC/PB
2. Consider implementation of shoreland zoning in areas within 100 feet of wetlands between 2 and 10 acres.	O	PB/TC
3. Recognize the value of vernal pools in the Greater Mount	I/S	CC/TS/TC/PB

Agamenticus area as significant breeding habitat that supports other forms of wildlife and afford appropriate protection. Consider shoreland zoning.		
4. Include endangered species habitat in the definition of high value wetlands.	I/S	CC/TS/PB

Goal 22. Preserve deer wintering areas (as currently defined) as significant natural resources.

Strategy	Priority	Responsible Party
1. Consult Inland Fisheries and Wildlife or other organizations and agencies to continue to document changes to deer yards.	O/I	CC/TS
2. Prohibit subdivisions from deer yards and require conditional use permits for all other newly established uses, which impact deer yards.	O/I	CC/TS/PB

Goal 23. Establish a riparian buffer zone within wildlife corridors, include fisheries, as defined important by Inland Fisheries and Wildlife, Strafford Rivers Conservancy, Great Works Regional Land Trust, Maine Audubon and Maine Natural Areas Program on waterways such as the Salmon Falls estuary, Great Works River, and the greater Mount Agamenticus area.

Strategy	Priority	Responsible Party
1. Maintain a resource protection district along the Salmon Falls Rivers Estuary.	O	TC/CC/TS
2. Establish conservation corridors between existing conservation lands.	I/S	CC/TS
3. Consider connecting Resource Protection Zone from the Great Works River to Hooper's Swamp via Hooper's Brook.	I/S	CC/TS/PB/TC
4. Work with Berwick, North Berwick, Wells, York and Eliot to create conservation corridors and, where appropriate, add existing protected lands.	S/L	CC/TS
5. Establish a greenbelt along the Salmon Falls and Great Works Rivers through the acquisition of easements, land purchases and State grant programs.	S/L	CC/TS/TC
6. Work with neighboring communities and the State of New Hampshire on the preservation of the Salmon Falls Corridor.	S/L	CC/TS

Goal 24. Preserve existing R4 and R5 zones, and examine other zoning considerations to preserve large block habitat.

Strategy	Priority	Responsible Party
1. In areas of documented large block habitat included in the Greater Mount Agamenticus region, consider changing the current R3 zone to R4 or R5. The suggested areas include: York Woods Road southerly to the Eliot Town Line and the Industrial Zone; northeasterly of York Woods Road and easterly of Witchtrot, Emery's Bridge, Rodier and Thurrell Roads.	I/S	CC/TS/TC/PB
2. Consider using build out scenarios to determine if zoning is adequate to protect natural resources.	O/I	TC/TS/PB

VII Critical And Natural Heritage Areas

Goal 25. Update inventories of critical and natural areas, and expand resource protection areas to include those areas not currently identified.

Strategy	Priority	Responsible Party
1. Work with the State Planning Office to expand and refine existing inventories of critical and natural areas.	O	CC
2. Develop GIS mapping to include critical and natural heritage areas. Update as new information becomes available.	I	CC/TS
3. Continue to recognize resource protection district standards to the Balancing Rock, Spring Hill Overlook and the Gorge. Periodically review the Zoning Ordinance to determine whether these standards should be applied to other critical and natural areas	O	CC/PB/TC

Goal 26. Continue to designate Resource Protection, Shoreland, floodplains and slope areas as currently defined in the Zoning Ordinance.

Strategy	Priority	Responsible Party
1. Continue to designate shoreland, floodplains and slope areas.	O	PB/TS/TC
2. For individual divisions of land, consider application of standards currently applied to subdivisions of land, including soils and wetlands for building envelopes and other site improvements.	I	PB/TS/TC

Goal 27. Ensure that recreational and/or commercial uses permit and promote the area's unique natural, scenic and historic value.

Strategy	Priority	Responsible Party
1. Continue to inventory and review all proposed development areas for their intrinsic natural attributes. Balance proposed uses to ensure minimal impact.	I/S	CC/PB/TS

Goal 28. Work with land owners to promote public use and access to natural areas where appropriate to the landowner and the resource.

Strategy	Priority	Responsible Party
1. Through the Town newsletter and Assessing office, communicate to residents the benefits available in landowner preservation options (tree growth, open space and easements).	O/I	CC/TS
2. Adopt State rates for Open Space assessment of value.	I	TS
3. Work to develop incentives on the local level for conservation and recreational easements. Consider Wells ordinance examples.	I/S	TS/TC/CC/PB
4. Develop an instrument for Town acceptance of easements, donations and gifts related to land conservation.	I	TS/TC/CC

Goal 29. Remain involved with the preservation of the Mount Agamenticus Region.

Strategy	Priority	Responsible Party
1. Acquire easements on properties with critical natural resources. Property tax compensation through existing State programs on newly created local programs should be examined.	S	CC/TC
2. Consider incorporating findings from Mount Agamenticus conservation planning process into strategies.	I/S	TC/TS/CC
3. Continue to advocate that the Land for Maine's Future Board purchase important parcels in the Mount Agamenticus area. Pursue other funding strategies for such land purchases.	O/L	TC/TS/CC
4. Pursue strategies regarding potential changes to the R3 zone as outlined in the wildlife section.	I	TC/TS/CC/PB
5. Seek to align Town zoning boundaries with the Mount Agamenticus area and amend ordinances where possible to develop consistent land use approaches between Town, Regional, State and Federal interests.	I/S	TC/TS/CC/PB

Goal 30. Promote joint efforts with all adjoining towns to protect natural resource areas which cross Town and State Boundaries (such as the Great Works River, Salmon Falls River, the Mt. A Region and aquifers).

Strategy	Priority	Responsible Party
1. See Natural Resources Goals 39 - 41 (Ground Water).		
2. See Natural Resources Goals 19 – 24 (Wildlife).		
3. Consider implementation of drinking water protection zones in tributary areas to the Belle Marsh Reservoir.	I/S	CC/PB/TS/TC

VIII Scenic Areas

Goal 31. Require the preservation of identified scenic views.

Strategy	Priority	Responsible Party
1. Amend the Subdivision Ordinance to require that scenic views be retained as land is developed.	I/S	CC/TS/TC/PB

2. Recognize scenic roads and retain dimensional roadway characteristics and elements that define their scenic views.	I	CC/TS/PB/PW

Goal 32. Undertake a more complete inventory of the Town's scenic resources including input.

Strategy	Priority	Responsible Party
1. Identify an established and accepted methodology for inventorying and assessing natural and scenic resources.	I/S	CC/TS

IV Agriculture, Forestry and Open Space

Goal 33. Require forest management practices that assure a sustainable forest resource.

Strategy	Priority	Responsible Party
1. Continue to limit clear cutting of large tracts of land, in consultation with the Maine Forest Service.	O	CC/TS/PB
2. Implement review of timber harvests located within the Resource Protection and Shoreland Zones.	O	CC/TS/PB

Goal 34. Require land use development practices that preserve expanses of open space, agricultural and forest land.

Strategy	Priority	Responsible Party
1. Encourage the use of the Tree Growth Tax Law and the Farm and Open Space Law, donations to the Great Works Regional Land Trust and the establishment of life estates.	I	CC/TS
2. Inventory farm and forest lands in the community and identify those areas, which, because of their high-grade soils, agricultural, forestry or other important resource values, warrant the most attention for preservation efforts.	I	CC/TS
3. Explore transfer of development rights options for significant farmland and open space areas.	I	CC/TS/PB/TC
4. Adopt a differential building cap or differential impact fee system for rural versus high density areas which would conserve the rural character and infrastructure.	I	CC/TS/PB/TC

Goal 35. Encourage the retention of unspoiled rural surroundings in close proximity to the populated areas.

Strategy	Priority	Responsible Party
1. See strategies in Housing, Land Use, Wildlife.		

Goal 36. Work to preserve through a system of easements, set asides and acquisition, lands which contain unique resource values.

Strategy	Priority	Responsible Party
1. See strategies in Land Use, Critical Resources, Critical and Natural Heritage Areas and Outdoor Recreation.		

Goal 37. Consider designating Town owned open space lands as permanently conserved.

Strategy	Priority	Responsible Party
1. Consider adoption of ordinance language similar to Wells Open Space Ordinance.	I	CC/TS/TC/PB

Goal 38. Consider creation of a land bank to purchase high value open space and working landscape easements.

Strategy	Priority	Responsible Party
1. Consider using designated revenue sources such as annual appropriations and undesignated revenue sources such as tree growth and open space withdrawal penalties and/or sales of tax acquired properties. A possible format for land bank disbursements could include a point ranking system for parcels and execution to the Town Council.	I	TC/CC
2. Investigate Wells Open Space ranking system and North Berwick's use of impact fees to fund open space purchases.	O/I	CC/PB/TC

V Water Resources: Ground Water

Goal 39. Continue the identification of potential water resources.

Strategy	Priority	Responsible Party
1. Gather well log data from newly dug private wells to help define bedrock well information.	I	TS
2. Incorporate into the town's information resources, information collected as part of the Hooper Sands Road study (on file in the Planning Office).	S	TS
3. Update Gillespie Aquifer study (on file in the Planning Office).	S/L	TS/SBWD/TC
4. Develop a GIS to organize information about ground water resources.	S	TS/SBWD

Goal 40. Continue to identify and monitor threats to ground water resources.

Strategy	Priority	Responsible Party
1. See strategies in public facilities – See Goals 4 & 6, Natural Resources, Section I.		
2. Inform building permit applicants of the need for water quality testing.	I	TS
3. Consider implementing a ground water management zone at known contaminated sites.	I	TS/PB
4. Maintain existing wellheads on Hooper Sands.	I	TS/PB/CC

Goal 41. Work on cooperative efforts with surrounding communities on issues related to aquifer protection.

Strategy	Priority	Responsible Party
1. Work with Berwick, North Berwick, Eliot and York to establish a mutual aquifer protection zone.	S/L	CC/TS/TC
2. Ensure ordinances are consistent with zoning in York regarding the Belle Marsh Watershed.	S	CC/TS/TC/PB

VI Marine Resources

Goal 42. Maintain and enhance the water quality, wildlife and open space(historic, scenic and recreational) values currently existing on the tidal portions of the Salmon Falls River.

Strategy	Priority	Responsible Party
1. Continue to recognize the resource protection district along the tidal portion of the Salmon Falls River.	O	TC/CC
2. Update the Salmon Falls Greenbelt Plan to reflect current information.	O	TC/CC
3. Use the public access points along the river to enhance public education about the river and its values.	S	CC

Fiscal Capacity

I Town Finances

Goal 1. Actively seek new non-tax sources of revenue and other methods of financing growth.

Strategy	Priority	Responsible Party
1. Require that developments which would create an unreasonable burden on Town services be built in phases which parallel planned expansion of municipal facilities as provided in Town's Capital Improvement Plan.	O	TC/TS
2. Consider an impact fee program to address impacts of new development.	O	PB/TS/TC
3. Include in the Subdivision Ordinance provisions to allow the town to require that developers participate in the provision or expansion of public facilities to service the development.	I	PB/TS
4. Investigate programs and services that can operate on a fee basis.	I	TS/TC
5. Increase efforts to pursue excise tax evaders.	O	TS/TC
6. Maximize the yield on interest income. Review investment program and investment alternatives annually.	O	TS/TC
7. Maintain a general fund balance equal to three months operating expenses.	O	TS/TC
8. Support lobby efforts to increase State aid to municipalities.	O	TS/TC

Goal 2. Maintain a responsible tax rate which is consistent with maintaining the current levels of service.

Strategy	Priority	Responsible Party
1. Analyze financial impact of new growth and new housing units and attempt to have new growth pay for itself.	I	TS/TC
2. Consider an impact fee program to address impacts of new development.	O	TS/TC/PB
3. Annually analyze existing fees to determine if levels are	O	TS

consistent with the costs of providing services.		
4. Refine and renew the building permit limitation ordinance, but examine the numerical cap on a yearly basis and readjust the cap as the Town and related agencies expand their ability to provide services. See Land Use Goal 4.	I	TS/TC
5. Fund long lived capital expenditures through bonding.	O	TS/TC
6. Maintain a 5 – 10 year capital improvement plan.	O	TS/TC
7. Decrease Town reliance on property tax to the maximum extent possible.	O	TS/TC
8. Analyze the desirability of tax increment financing as a tool to promote commercial and industrial development.	I	TS/TC/EDC
9. Investigate collaborative purchase of materials and equipment with adjoining towns.	I	TS/TC/PW
10. Continue to develop build out scenarios based on current zoning standards. Use available mapping to identify development constraints.	O	TS/TC

II CULTURAL RESOURCES

Goal 3. Develop and implement framework to promote and sustain Town wide cultural advocacies.

Strategy	Priority	Responsible Party
1. Establish a Town Council appointed Cultural Committee.	I/S	TC
2. Develop and maintain a South Berwick Artisan directory.	I	EDC/TS

Goal 4. Develop and expand cultural activities as well as facilities to house them and promote public awareness of such activities.

Strategy	Priority	Responsible Party
1. Consider using the Jewitt Eastman House as a site for cultural communication and display.	I	HDC/EDC/TS
2. See Downtown Goals.		
3. Develop a central location for the visual, performing and literary arts as well as expand the use of existing facilities for these purposes.	I/S	EDC/TS/TC

4. Consider parking when designing existing common spaces for cultural events.	I/S	PB/TC/TS/EDC

III Transportation

Goal 5. Reduce traffic volume on roads in town during peak commute periods, reduce overall commute times for South Berwick residents and provide a greater range of transportation choices for South Berwick residents

Strategy	Priority	Responsible Party
1. Encourage more local employment opportunities.	I	TC/EDC/TS
2. Encourage telecommuting by providing high speed Internet access in all parts of town.	I	TC/EDC/TS
3. Change zoning in village center to allow greater development of new businesses downtown (see Land Use & Downtown strategies).	I	TC/PB/TS
4. Encourage carpooling and transportation alternatives.	I/S	TC/EDC
5. Enhance car pooling facilities through a web site and phone number and improving the visibility of car pooling facilities through better signage and publicity.	I/S	TC/EDC/TS
6. Improve publicity for the South Berwick volunteer ride network for senior citizens.	O	TS
7. Explore potential transit service to the Dover Transportation Center and to Eliot, Kittery and Portsmouth by working with COAST and pertinent state agencies in Maine and New Hampshire.	I	EDC/TC/TS
8. Encourage the town's representative to the KACTS committee to be a strong advocate for public transportation facilities to link the KACTS communities with existing transportation and employment centers in New Hampshire.	O	TC/EDC/TS
9. Design school bus routes and times to provide maximum convenience for students and to minimize bus riding time. Consider adding buses and routes to achieve this objective.	O	TS/SAD #35
10. Hold community forums to determine barriers to school bus ridership for all public and private schools in town and to	I/S	EDC/TS/SAD #35

develop incentives for greater ridership.		

Goal 6. Ensure a balance between the mobility function of the state highways, safety of the traveling public and accessibility to abutting property, especially in downtown and in areas where development may be encouraged.

Strategy	Priority	Responsible Party
1. Review the results of the origin destination study to help determine if a bypass road should be built to connect Route 236 south of the town center and Route 4 east of the town center; preserve the old railroad grade from the intersection of Routes 91 and 236 to Route 4 in North Berwick as a transportation corridor.	S	TS/PW
2. Explore alternative means of access such as parallel service roads or interconnected side streets on Route 236, south of Route 91 to the Eliot town line.	I	TC/TS/PW
3. Include requirements for single point access to the industrial zone in the zoning ordinance.	S	PB/TS/TC
4. Adopt an access management policy of combining driveway and entrances of adjacent properties used for industrial, commercial or high density residential development.	I	PB/TS/TC/PW
5. Develop a parking management strategy for downtown. Review parking requirements in zoning ordinance to ensure that they do not provide disincentives for business and development in downtown.	I	EDC/PB/TS/TC
6. Develop an enforcement program for on-street parking limits in the downtown (amend downtown strategy).	O	TS/TC

Goal 7. Reduce the volume of heavy vehicles and oversize vehicles on Routes 236 and 4 and in the village center.

Strategy	Priority	Responsible Party
1. Initiate a concerted effort to urge agencies that regulate and permit the movement of heavy vehicles to make it easier for heavy vehicles to travel on Interstate 95.	O	EDC/TC/TS/PW

2. Urge State agencies in Maine and New Hampshire to adopt PrePass or other automated weigh station technology.	I	TC/TS
3. Advocate a regional forum, through the town's representative on the KACTS committee on ways to encourage heavy trucks to stay on the Maine Turnpike.	O	TC/TS
4. Continue to encourage strict enforcement of commercial vehicle laws on all state highways in town.	O	TS/TC
5. Urge the State of Maine to change the designation of Routes 236 and 4 so that they are no longer the preferred routes for oversize loads.	O/I	TS/TC

Goal 8. Improve safety on all roads in town.

Strategy	Priority	Responsible Party
1. Explore traffic calming design standards for new and existing roads.	S	TS/PB/TC/PW
2. Install traffic calming measures on Portland Street.	I	PW/TS/TC
3. Encourage the Police Department to strictly enforce speed limits and other traffic safety laws and procure or expand the use of any and all measures, including the use of electronic surveillance to reduce speeding.	O/I	TC/TS
4. Request MDOT to review reducing the speed limit on Route 236 from the center of town to the intersection of Route 91 to 35 mph as well as on Route 236 south of Route 91 to 45 mph (to be consistent with Kittery and Eliot).	I	TC/TS
5. Establish a school zone on the portion of Route 236 in front of Marshwood Middle School or restrict access to Academy Street to the two extreme ends of the street.	I	TC/TS
6. Enhance lane and control paintings at various locations in town, including the exit from Old Mill at Quarry Drive to designate left and right turning lanes, left and right turning lanes on Route 236 northbound at it's intersection with Route 4, adding a left turning lane to Route 236 southbound at its intersection with Route 91.	I	TC/TS

Goal 9. Provide safe and adequate roads in areas designated for growth while maintaining the rural character of town roads.

Strategy	Priority	Responsible Party
1. Maintain consistency between transportation improvements and the land use and economic development goals of the town.	I	PB/TS/EDC
2. Develop different design standards for designated growth and rural areas to help direct growth.	I	TS/PW
3. Develop an impact fee system (see fiscal capacity strategy).	O	PB/TC/EDC
4. Ensure that the design of sidewalks will preserve the rural character of town roads while retaining safety for all users.	I	TS/TC/PW
5. Discourage the use of roads such as Alder Drive, Liberty Street, Colcord Street and Norton street as unofficial bypasses by increasing traffic safety enforcement and traffic calming devices.	I	TC/TS/PW
6. Investigate making some streets in the village center one way if at least 75 percent of residents of the street agree to such a change.	I	TC/TS/PW

Goal 10. Encourage walking and biking to the greatest extent possible for people of all ages as means of reducing air pollution and increasing wellness.

Strategy	Priority	Responsible Party
1. Design new and rebuilt sidewalks and roadway shoulders outside the town center to allow for both pedestrians and bikers. Amend the zoning ordinance to specify bicycle specific signage and compatible pavement.	S	TS/TC/PW/PB
2. Build a pedestrian/bike tunnel under Route 236 near Marshwood Middle School.	L	TC/TS
3. Encourage the construction of off road trails and on road spur trails to access the Eastern Trail.	S	CC/TC/PB/TS
4. Redesign access to Central School to provide safer conditions for students who walk and bike to school.	O	SAD #35/TS/TC
5. Clearly mark the 25 mph portion of Portland Street with pedestrian/bike crossings at all intersections.	I	PW/TS

6. Rehabilitate the abandoned trolley/train line from Fogarty's to Young Street for safer student access to Central School.	S/L	TC/TS
7. Create trails to provide off road access to Marshwood Middle School from Old Mill and Agamenticus Estates.	S/L	TC/TS
8. Develop a bike-friendly initiative including installation of bike racks at town facilities and in downtown, recruitment of a bike shop to locate downtown.	S/L	TC/TS

Public Facilities

I Municipal Buildings

Goal 1. Develop a master plan to address the future needs for municipal buildings.

Strategy	Priority	Responsible Party
1. Review and update the master plan regularly through the CPVC.	I	TC/BC
2. Ensure that improvements to municipal buildings are included as part of a ten year master plan. Consider regionalization of services.	S	TC/TS/BC

II Library

Goal 2. Provide for adequate library facilities.

Strategy	Priority	Responsible Party
1. Work with the Library Committee to provide adequate Library services.	I	TS
2. Investigate alternate funding sources such as grants.	S	TS
3. Increase public awareness of community access to the Marshwood High School Library and Internet services.	S	LAB

III Solid Waste

Goal 3. Continue to provide facilities and services for disposal of all residential waste, including household hazardous waste.

Strategy	Priority	Responsible Party
1. Continue to identify sites for disposal of items that cannot be sent to MERC or recycled.	O	TS
2. Continue to work with other Southern Maine towns to protect	O	TS

municipal interests in dealing with MERC and other solid waste companies.		
3. Continue to maximize recycling efforts at the local level and work with other communities to develop regional solutions.	O	TS
4. Develop contingency plans to deal with the temporary or permanent closure of MERC.	I	TS
5. Develop regional strategies for waste disposal.	O	TS

Goal 4. Maintain and expand a comprehensive recycling and composting program.

Strategy	Priority	Responsible Party
1. Establish an educational program in the schools and at the transfer station and town wide aimed at increasing the awareness of solid waste disposal solutions.	S	TS
2. Continue to provide a hazardous waste collection system at the transfer station for all residents and provide adequate notification of timing.	O	TS
3. Provide public education and enforce mandatory recycling policies.	O	TS/TC

IV Sewage Treatment

Goal 5. Continued communication with the South Berwick Sewer District on issues related to planning, water quality and capital improvements.

Strategy	Priority	Responsible Party
1. Increase communication and cooperation to allow for efficient use of resources.	O	TC/TS/SBSD
2. Ensure that all interested parties are given the opportunity to offer input in the planning of future growth and development.	O	TC/TS/SBSD

Goal 6. Discourage the use of large community septic systems in new developments.

Strategy	Priority	Responsible Party
1. Ensure that the zoning ordinance encourages high density development to occur in areas with public water and sewer services (see Land Use Goal 1).	O	TS/SBSD/PB

Goal 7. Continue to ensure that lots are of sufficient size to accommodate on site subsurface sewage disposal systems.

Strategy	Priority	Responsible Party
1. See Natural Resources Goal 4.		

Goal 8. Ensure that future users of the sewage treatment system pay their fair share of costs of upgrading and expanding the system.

Strategy	Priority	Responsible Party
1. Monitor the impact fee system to ensure that developers are bearing an appropriate prorata share of future upgrades and improvements.	O	TS/SBSD
2. Review the fee structure to ensure that connection to public sewer is not discouraged by cost.	O	TC/SBSD

Goal 9. Affirm that sewage treatment through the South Berwick Sewer District's facilities is preferred over subsurface sewage disposal in the core section of town.

Strategy	Priority	Responsible Party
1. Extend public sewers to newly developing areas adjacent to the existing sewer service areas when developers will pay the costs and where such extensions will not occur in environmentally sensitive.	I	TS/SBSD

V Public Schools

Goal 10. Continue dialogue with MSAD #35 to work on mutual long term planning goals.

Strategy	Priority	Responsible Party
1. Meet with school officials on a regular basis to consider facility needs, to analyze the impact of school assessments on the tax rate and to analyze the implications of residential growth.	O	TS/TC

Goal 11. Maximize the community use of school district facilities.

Strategy	Priority	Responsible Party
1. Educate the public about facilities available for community use.	O	SAD #35
2. Explore new ways to work with the district to maximize the use of school facilities.	S	TS/SAD #35

VI Emergency Services

Goal 12. Ensure that public safety and rescue services keep pace with the growing population and maintain quality and cost effectiveness.

Strategy	Priority	Responsible Party
1. Evaluate the current level of service and monitor the extent to which the town's needs are met relative to national and state service standards.	S	BC/TS
2. Conduct a feasibility study and cost/benefit analysis regarding the possibility of regionalizing police or dispatch services.	O	TS

Goal 13. Monitor and participate in regionalization efforts for providing police, fire and rescue services.

Strategy	Priority	Responsible Party
1. Initiate a study for the local region and work with county and state officials regarding regionalization.	S	TS

VII Water

Goal 14. Continue to work closely with the South Berwick Water District on issues related to planning and water quality.

Strategy	Priority	Responsible Party
1. Consider water district needs and concerns in potential zoning ordinance revisions.	L	SBWD/PB/TS
2. Encourage the development of community water systems.	S	PB/SBWD/TS

Goal 15. Protect future water supply.

Strategy	Priority	Responsible Party
1. See Natural Resources Goal 8 (Water Resources).		
2. Explore strategies for enhanced efficiency and costs through regional cooperation.	O	TS/SBWD

VIII Outdoor Recreation

Goal 16. Plan for recreation lands and facilities based on identified needs, aimed at overcoming existing deficiencies and providing a wide range of recreational opportunities.

Strategy	Priority	Responsible Party
1. Research public access rights to open space properties and bodies of water.	L	TS/RC
2. Develop GIS mapping to include trails, natural areas and potential open space corridors.	L	TS/CC

Goal 17. Implement a policy for maintenance, development and use of all existing and potential facilities and open spaces.

Strategy	Priority	Responsible Party
1. Authorize funds to plan for recreational use of town owned land.	S	TC
2. Investigate the feasibility of creating a walking/jogging/biking trail system in the Powderhouse Hill and Agamenticus fields' complex area.	S	TS/PB/CC
3. Continue to assign fees which fairly reflect the cost of programs (see Fiscal Capacity Goal 2).	O	TC
4. Continue to support a yearly parks maintenance program and budget for all recreational facilities.	O	TC
5. Investigate alternate funding sources for maintenance and development.	I	TS

Goal 18. Increase public awareness of potential recreational use of public lands.

Strategy	Priority	Responsible Party
1. Develop GIS mapping to include all Town owned lands and amend the Recreation Plan as necessary to include uses for these lands. Include the current inventory in the annual town report.	L	TS/RC/CC
2. Provide better identification of the Town Forest and maintain areas for passive uses.	O	TS/CC

Goal 19. Acquire recreational and conservation lands through a broad based strategy including acquisitions, donations and easements, with particular attention to providing tax relief of potential recreation/conservation lands, providing access to water bodies and extending greenbelts through the Town.

Strategy	Priority	Responsible Party
1. Encourage the establishment and preservation of walkways and open space corridors by utilizing easements or by acquiring rights of way.	S	TS/TC
2. Provide education about tax incentives for allowing recreational	S	TS

use of land.		
3. Establish an account for dedicated funds and donations for open space and recreational purposes. Include this fund as part of the capital improvement plan.	S	TC/TS
4. Investigate the potential for dedication of penalty funds for land taken out of Tree Growth, Farm or Open Space protection to be used as an open space fund.	S	TC/TS
5. Investigate the sale of tax foreclosed properties with the proceeds to be dedicated to an open space fund and recreational maintenance fund.	S	TC/TS

Goal 20. Expand cultural activities as well as facilities to house them and promote public awareness of such activities.

Strategy	Priority	Responsible Party
1. See Cultural Resources Goals 3 & 4.		